

Electrical documentation

# Xcalibur PX

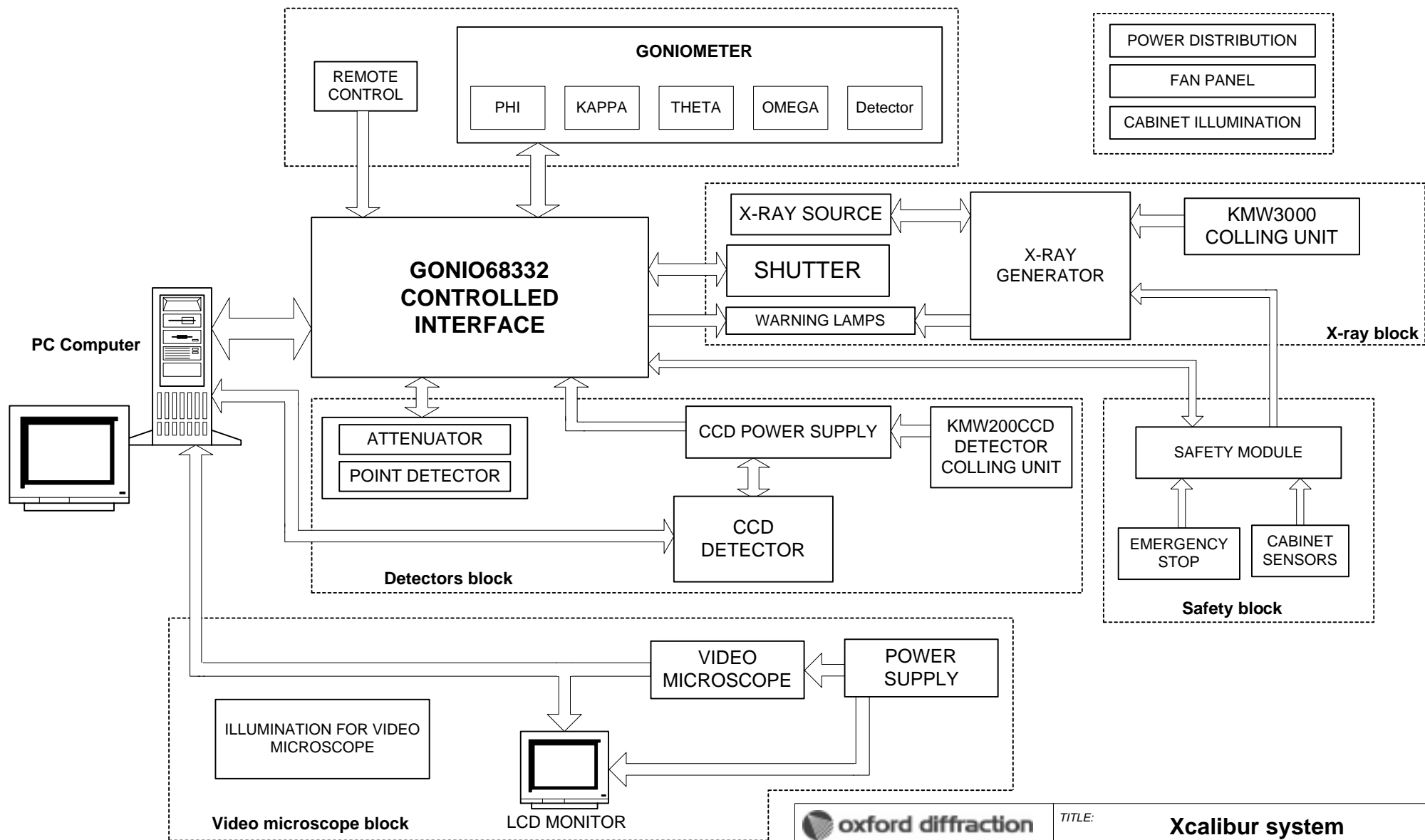
Single Crystal Diffractometer




version 2.05

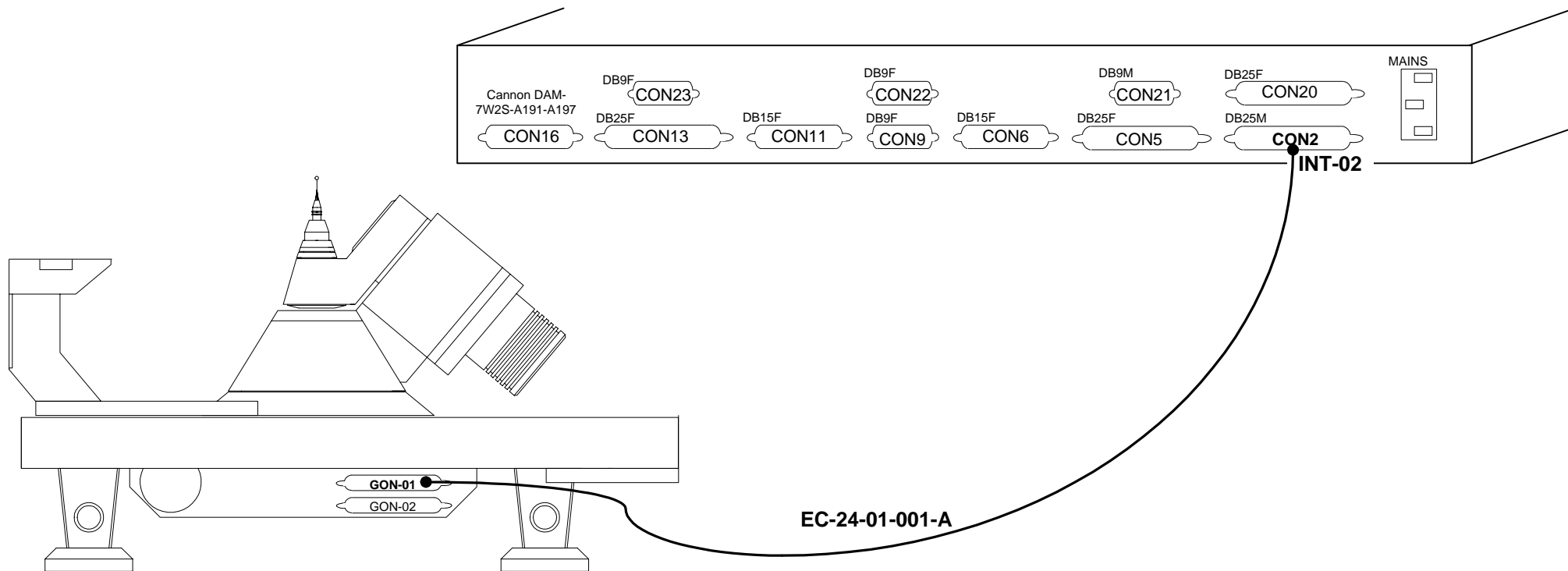
05.2004 Wrocław






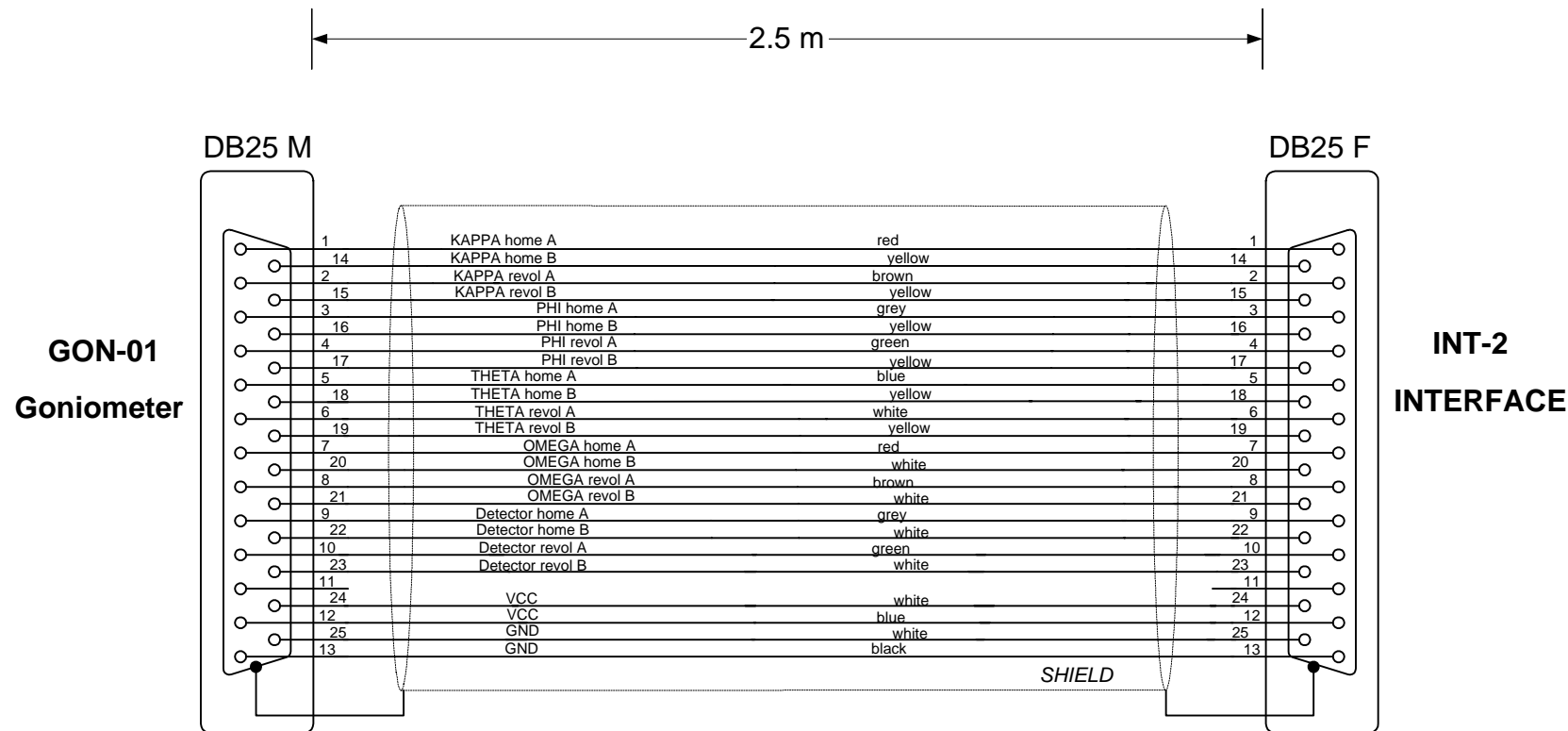
	TITLE: <b>Xcalibur system</b>	
	Block diagram	
DRG NO. <b>EC-00-00-000-B</b>	FILE: \\workgroups\electronics\Xcalibur\Electrical Documentation v200\	REV. <b>C</b>
DRAWN BY: <b>R. S.</b>	DATE: Nov. 2002	SHEET <b>1 of 1</b>
APPROVED BY:		


A. No.	B	C		
Appr				
Date	06/2003	05/2004		

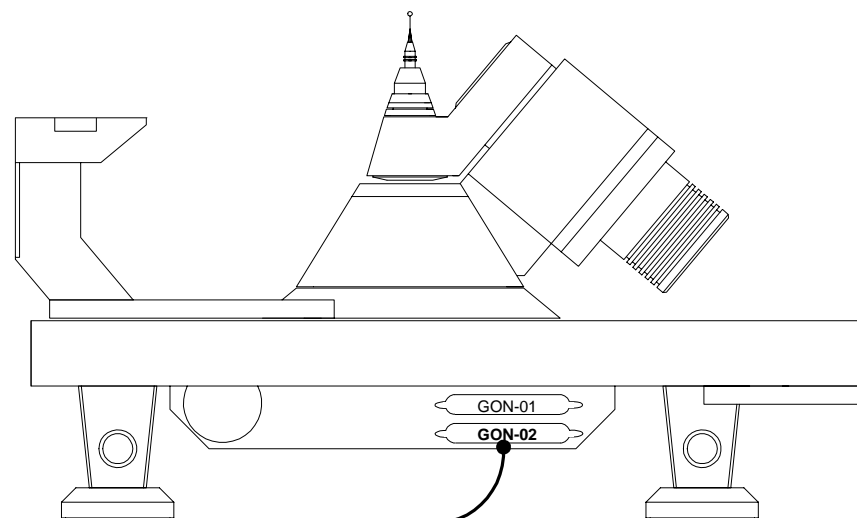


PNS code: <b>EC-24-01-001-A</b>		Length: <b>2.5m</b>	Drg no.: <b>EC-24-01-001-A</b>
Description: <b>Encoders communication</b>			
Cable: <b>2 x 12 x 0.25 shielded</b>	Connector 1: <b>INT-02</b>		Connector 2: <b>GON-01</b>
	PNS code: <b>EA-06-00-006-A</b>		PNS code: <b>EA-06-00-005-A</b>
PNS code: <b>EA-05-00-014-A</b>	Type: <b>DB25 female</b>		Type: <b>DB25 male</b>
Type: <b>LiYCY2x12x0.25 shielded</b>	Location: <b>Interface – rear panel</b>		Location: <b>Goniometer</b>

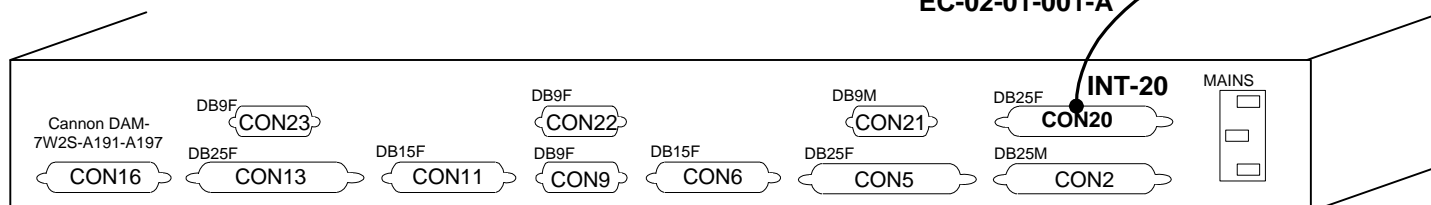
					<div> <b>oxford diffraction</b></div>	<div>TITLE:</div> <div><b>Xcalibur system</b></div> <div><b>Encoders cable</b></div>		
					<div>DRG NO.</div> <div><b>EC-24-01-001-A</b></div>			
<div>A. No.</div>	<div>B</div>	<div>C</div>			<div>DRAWN BY:</div> <div>R. S.</div>	<div>FILE:</div> <div>\\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\</div>		<div>REV.</div> <div><b>C</b></div>
<div>Appr</div>					<div>APPROVED BY:</div>	<div>DATE:</div> <div>06/07/2001</div>	<div>SHEET</div> <div><b>1 of 2</b></div>	
<div>Date</div>	<div>Dec. 2002</div>	<div>05/2004</div>						




					 DRG NO. <b>EC-24-01-001-A</b>	TITLE: <b>Xcalibur system Encoders cable</b>	
A. No.	C	D					
Appr					DRAWN BY: R. S.	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>D</b>
Date	Dec. 2002	05/2004			APPROVED BY:	DATE: 04/07/2001	SHEET <b>2 of 2</b>

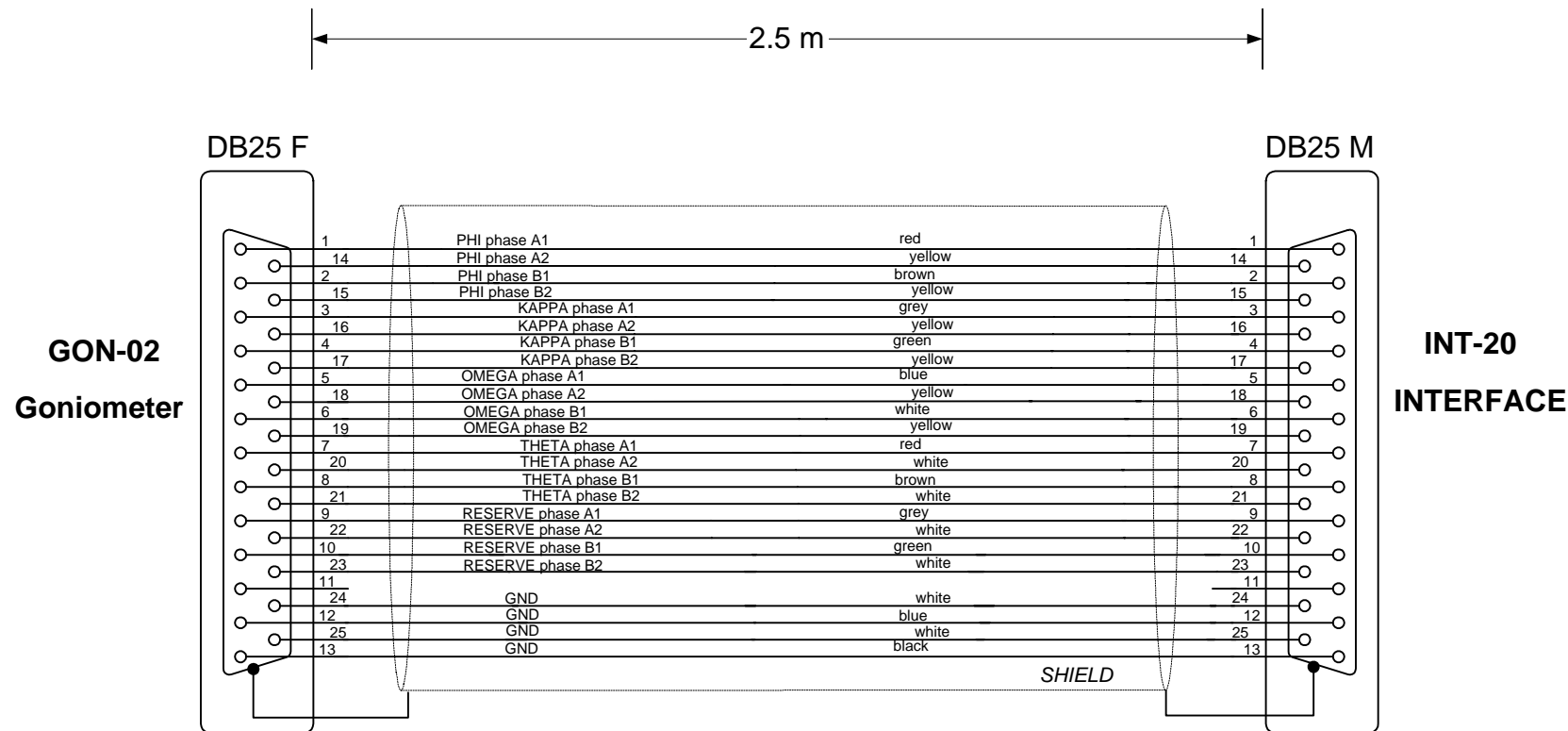



EC-02-01-001-A

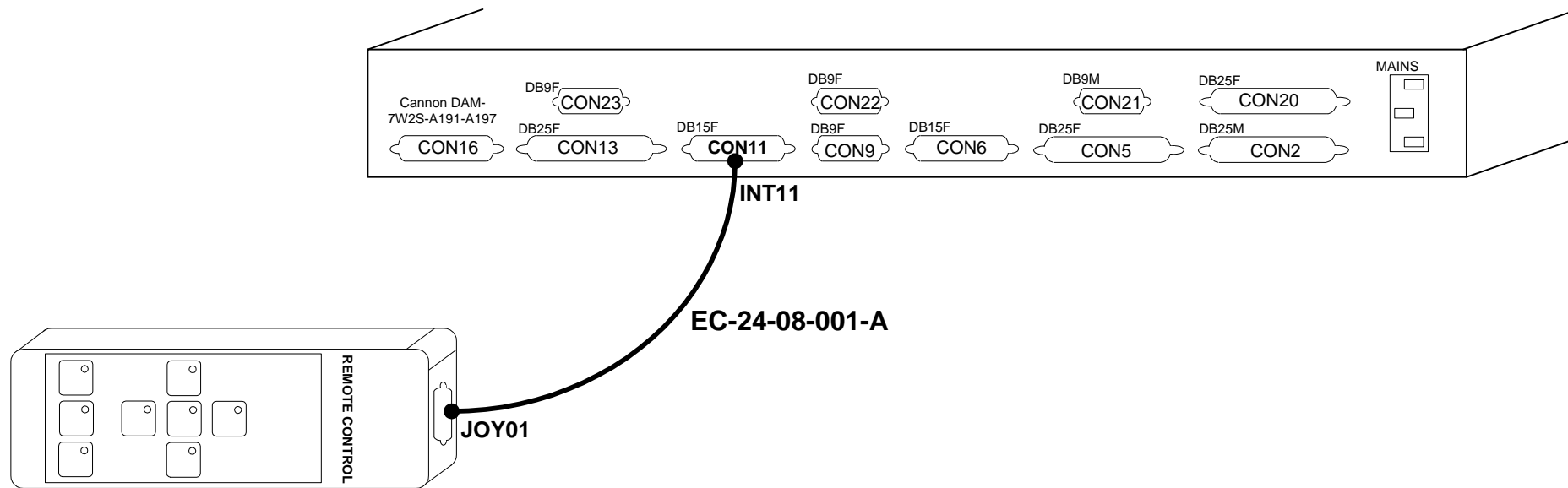


PNS code: <b>EC-02-01-001-A</b>		Length: <b>2.5m</b>	Drg no.: <b>EC-02-01-001-A</b>
Description: <b>Stepping motor supply</b>			
Cable: <b>2 x 12 x 0.25 mm2 shielded</b>		Connector 1: <b>INT-20</b>	Connector 2: <b>GON-02</b>
		PNS code: <b>EA-06-00-005-A</b>	PNS code: <b>EA-06-00-006-A</b>
PNS code: <b>EA-05-00-014-A</b>		Type: <b>DB25 male</b>	Type: <b>DB25 female</b>
Type: <b>LiYCY2x12x0.25 shielded</b>		Location: <b>Interface – rear panel</b>	Location: <b>Goniometer</b>


							TITLE: <b>Xcalibur system</b>	
					DRG NO. <b>EC-02-01-001-A</b>		<b>Stepping motors cable</b>	
					DRAWN BY: <b>R. S.</b>		FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>C</b>
					APPROVED BY:		DATE: <b>06/07/2001</b>	SHEET <b>1 of 2</b>
A. No.	B	C						
Appr								
Date	<b>12/2002</b>	<b>05/2004</b>						

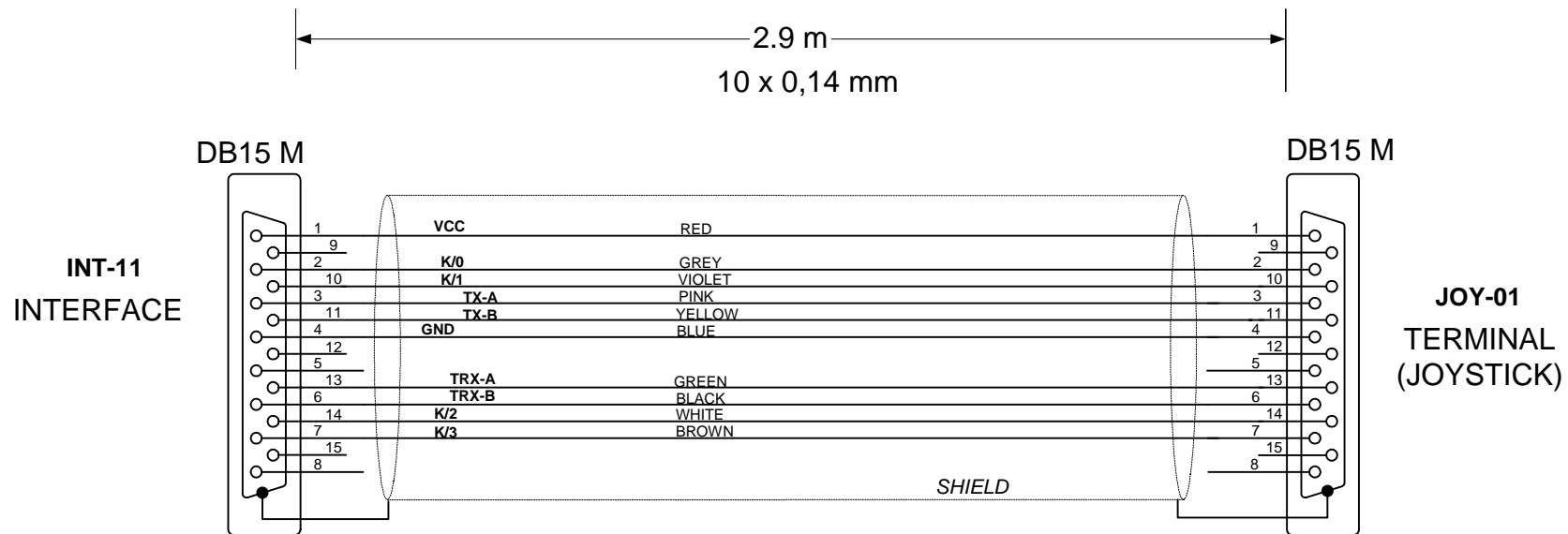


					 DRG NO. <b>EC-02-01-001-A</b>	TITLE: <b>Xcalibur system</b> <b>Stepping motors cable</b>		
A. No.	C	D				FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. D	
Appr					DRAWN BY: R. S.			
Date	12/2002	05/2004			APPROVED BY:	DATE: 04/07/2001	SHEET	2 of 2



PNS code: <b>EC-24-08-001-A</b>		Length: <b>2.9m</b>	Drg no.: <b>EC-24-08-001-A</b>
Description:			
Cable: <b>10 x 0.14 mm2 shielded</b>	Connector 1: <b>INT-11</b>		Connector 2: <b>JOY-01</b>
	PNS code: <b>EA-06-00-003-A</b>		PNS code: <b>EA-06-00-003-A</b>
PNS code: <b>EA-05-00-004-A</b>	Type: <b>DB15 male</b>		Type: <b>DB15 male</b>
Type: <b>LiYCY10x0.14 shielded</b>	Location: <b>Interface – rear panel</b>		Location: <b>Terminal</b>

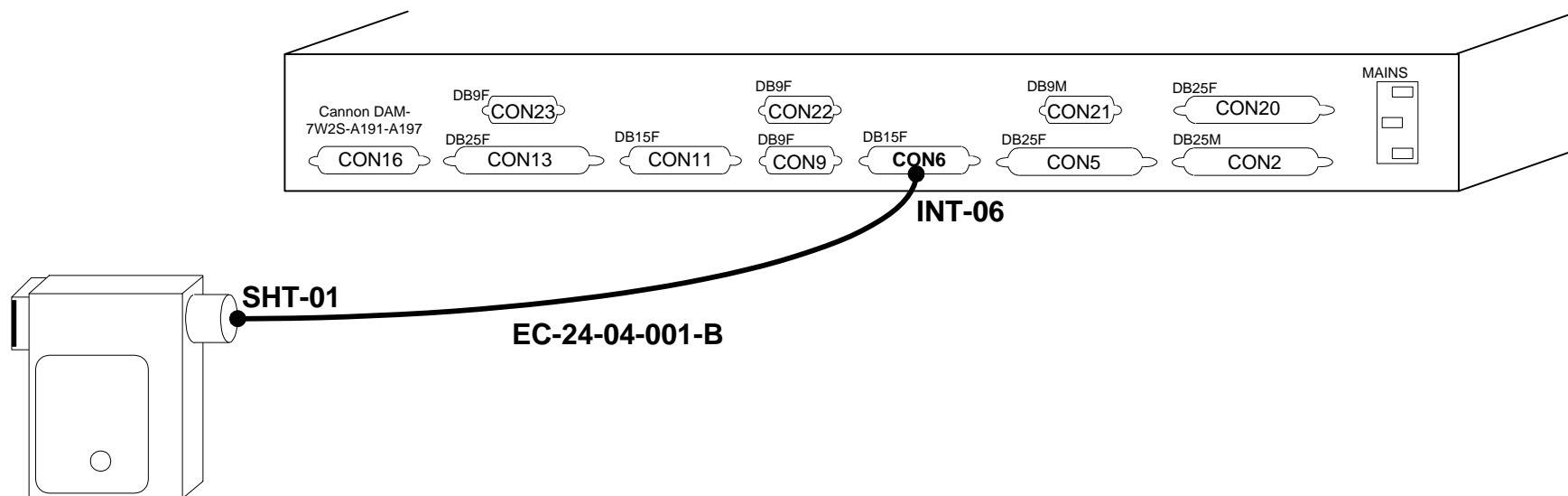
					<div><div></div><div>oxford diffraction</div></div>	<div>TITLE:</div> <div>Xcalibur system</div>		
					<div>DRG NO.</div> <div>EC-24-08-001-A</div>	<div>Remote control cable</div>		
A. No.	B					<div>FILE:</div> <div>\\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\</div>		<div>REV.</div> <div>B</div>
Appr					<div>DRAWN BY:</div> <div>R. S.</div>			
Date	05/2004				<div>APPROVED BY:</div>	<div>DATE:</div> <div>09/07/2001</div>	<div>SHEET</div> <div>1 of 2</div>	




	<b>TITLE:</b> Xcalibur system Remote control cable	
	<b>DRG NO.</b> EC-24-08-001-A	
<b>DRAWN BY:</b> R. S.	<b>FILE:</b> \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	<b>REV:</b> B
<b>APPROVED BY:</b>	<b>DATE:</b> 09/07/2001	<b>SHEET</b> 2 of 2

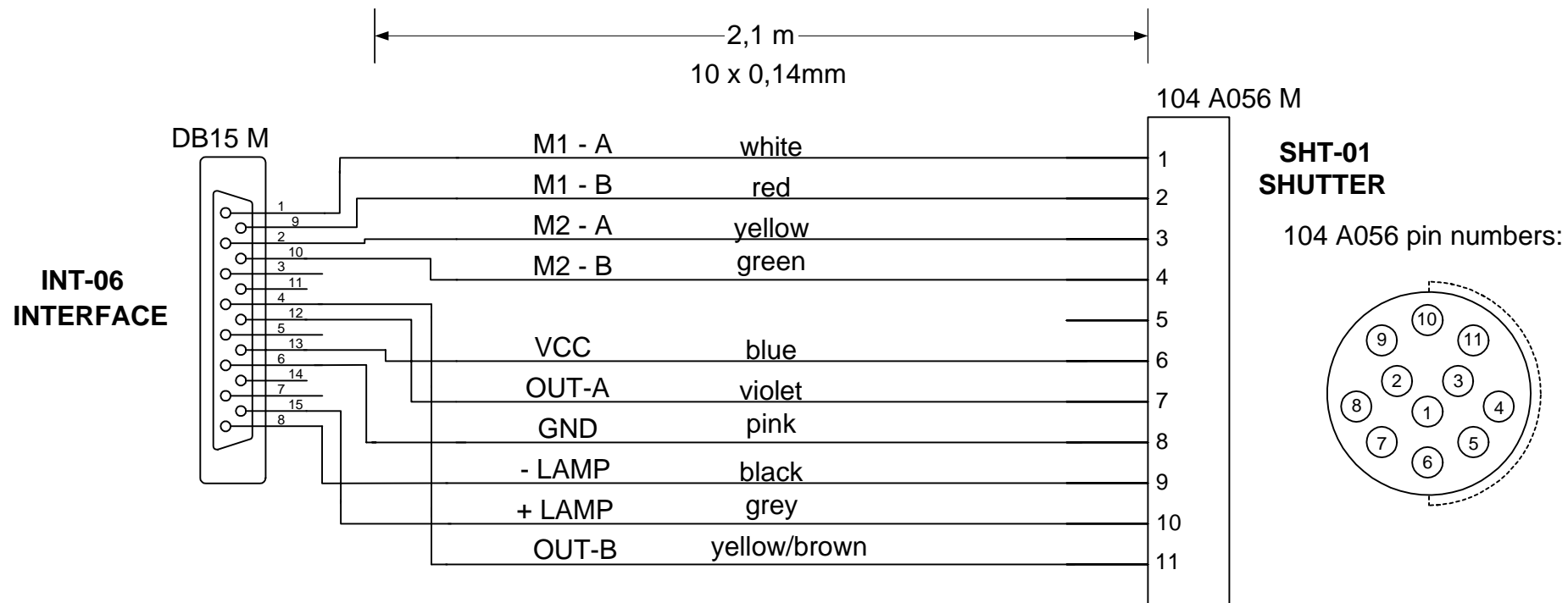
<b>A. No.</b>	B			
<b>Appr</b>				
<b>Date</b>	05/2004			






<i>PNS code:</i> <b>EC-24-04-001-B</b>		<i>Length:</i> <b>2,1m</b>	<i>Drg no.:</i> <b>EC-24-04-001-A</b>
<i>Description:</i> <b>Shutter connections</b>			
<i>Cable:</i> <b>10 x 0.14 mm2 shielded</b>	<i>Connector 1:</i> <b>INT-06</b>		<i>Connector 2:</i> <b>SHT-01</b>
	<i>PNS code:</i> <b>EA-06-00-003-A</b>		<i>PNS code:</i> <b>EA-06-00-028-A</b>
<i>PNS code:</i> <b>EA-05-00-004-A</b>	<i>Type:</i> <b>DB15 male</b>		<i>Type:</i> <b>104A056 Fischer</b>
<i>Type:</i> <b>LiYCY10x0.14 shielded</b>	<i>Location:</i> <b>Interface – rear panel</b>		<i>Location:</i> <b>Shutter</b>

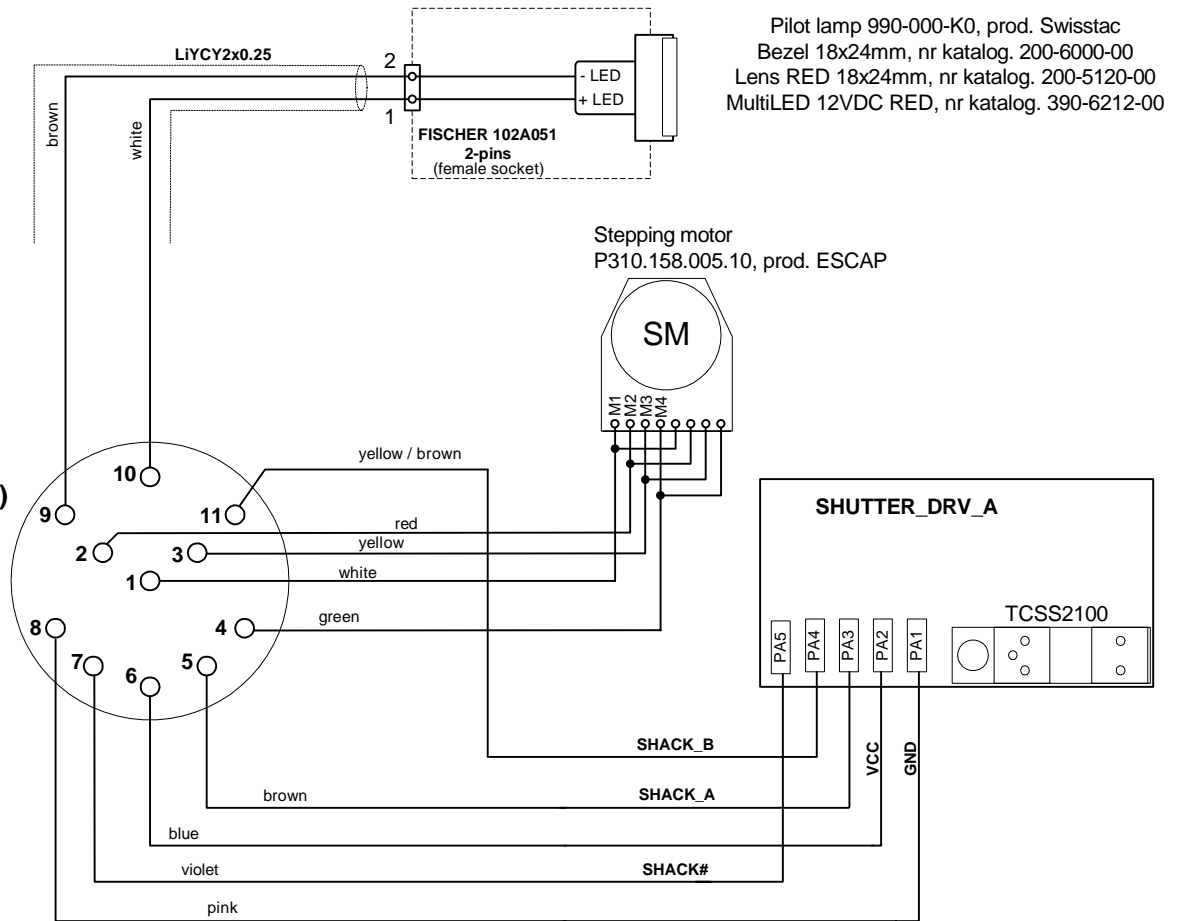
					 TITLE: <b>Xcalibur system</b> <b>Fast shutter cable</b>		
A. No.	B					DRG NO.	
Appr					<b>EC-24-04-001-B</b> DRAWN BY: <b>R. S.</b> APPROVED BY:	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>B</b>
Date	05/2004					DATE: 16/01/2002	SHEET <b>1 of 2</b>




					 DRG NO. <b>EC-24-04-001-B</b>	TITLE: <b>Xcalibur system Fast shutter cable</b>	
A. No.	B	C					
Appr					DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>C</b>
Date	7/02/2002	05/2004			APPROVED BY:	DATE: 16/01/2002	SHEET <b>2 of 2</b>

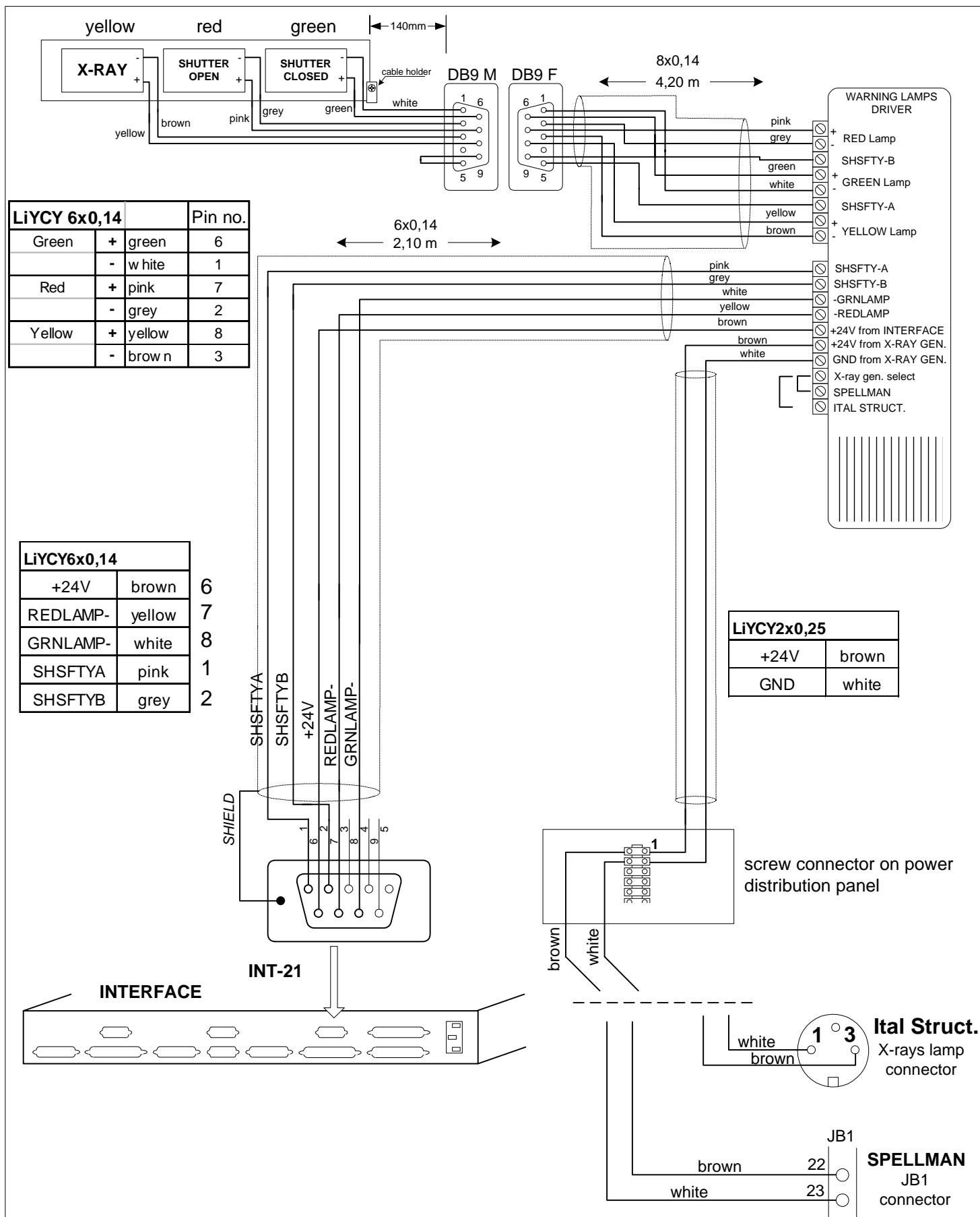
104A056 Pin no.	Description	Cable color
1	M1 stepping motor	White
2	M2 stepping motor	Red
3	M3 stepping motor	Yellow
4	M4 stepping motor	Green
5	SHACK_A	Brown
6	VCC (+5V)	Blue
7	SHACK# (TTL_OUT)	Violet
8	GND	Pink
9	LED -	BROWN
10	LED +	WHITE
11	SHACK_B	Yellow/Brown

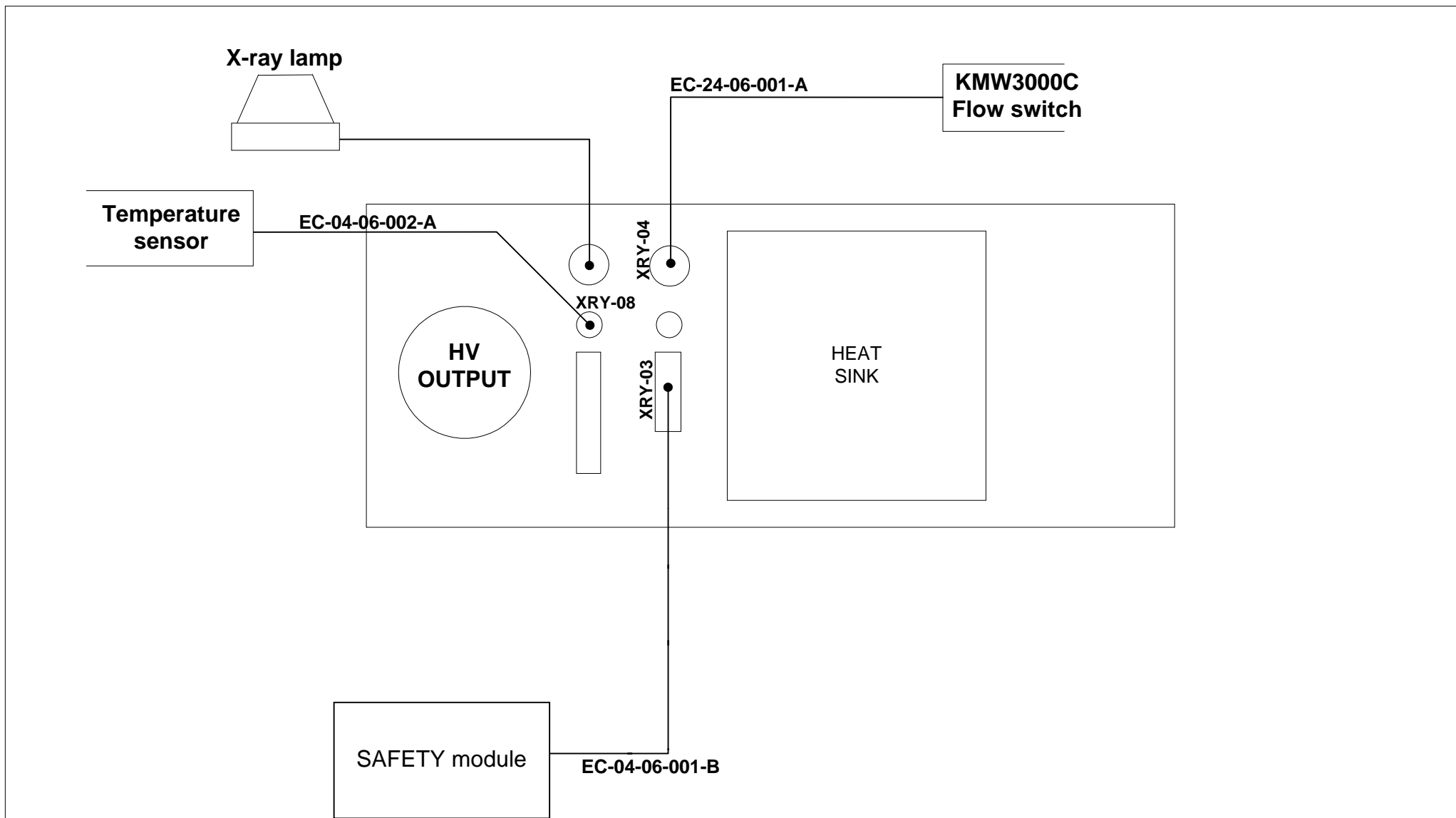
**FISCHER  
104 A056**  
(female socket)




A. No.	A	B	C	D
Appr				
Date	16/01/2002	5/03/2002	6/05/2002	4/09/2002

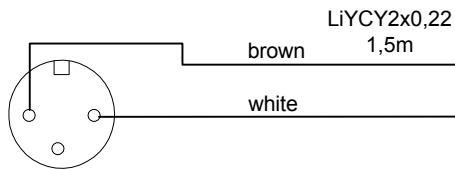
 <b>oxford diffraction</b> DRG NO. <b>OD-1-06-30</b>	TITLE: <b>ENHANCE ULTRA Shutter connections</b>	
	FILE: \\electronics\xcallibur\Electrical documentation v200	REV. <b>D</b>
	DRAWN BY: <b>R. S.</b>	
APPROVED BY:	DATE: 09.01.2002	SHEET <b>1 of 1</b>



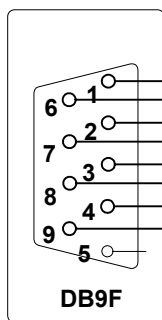


					 <b>oxford diffraction</b>	<b>TITLE: C3K5 x-ray generator</b> <b>Rear panel</b>		
					DRG NO.  <b>OD-1-06-25</b>			
A. No.						FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. A
Appr					DRAWN BY: <b>R. S.</b>			
Date					APPROVED BY:	DATE: July 26, 1999	SHEET	<b>1 of 1</b>

**Ital Struct.**  
X-rays lamp  
connector

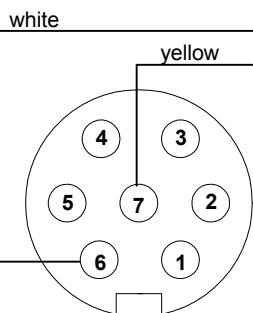


**P3**



LiYCY4x0.14  
1,5m

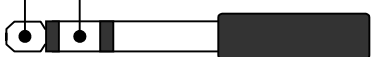
LiYCY4x0.14  
1,5m



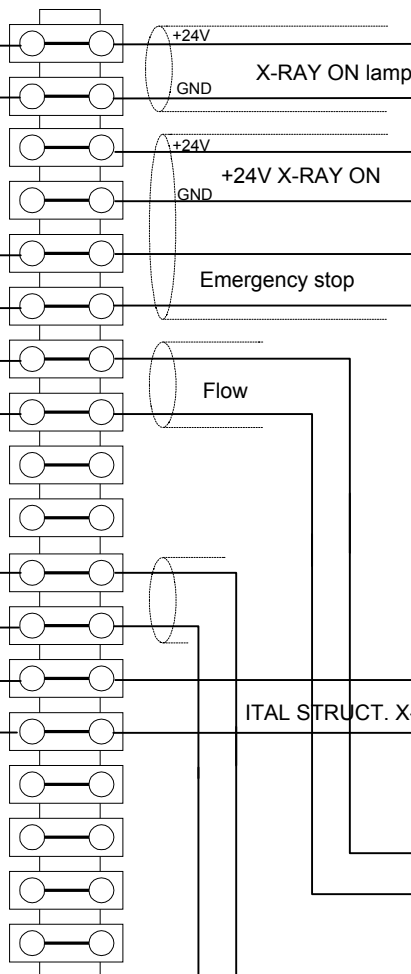
**P4 connector**

LiYCY2x0,22  
1,5m

**JACK connector**



Screw connector  
(electrical rack - left side)

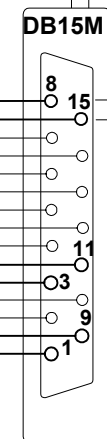


**Warning lamps driver**  
(see warning lamps wiring diagram)

**CAB-05**

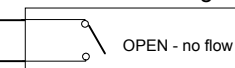
**D15F**

**I/O module**

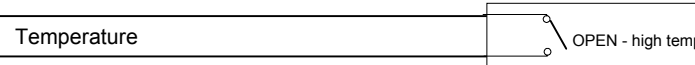


Emergency stop  
n.c.

**KMW3000C flow sensor**  
(see KMW3000C wiring diagram)



**X-RAY tube temperature sensor**



DRG NO.

**EC-24-06-001-D**

DRAWN BY: **R. S.**

APPROVED BY:

TITLE:

**ITAL STRUCTURES  
x-ray generator  
Safety connections**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

REV. **A**

DATE: **04.2003**

SHEET **1 of 1**

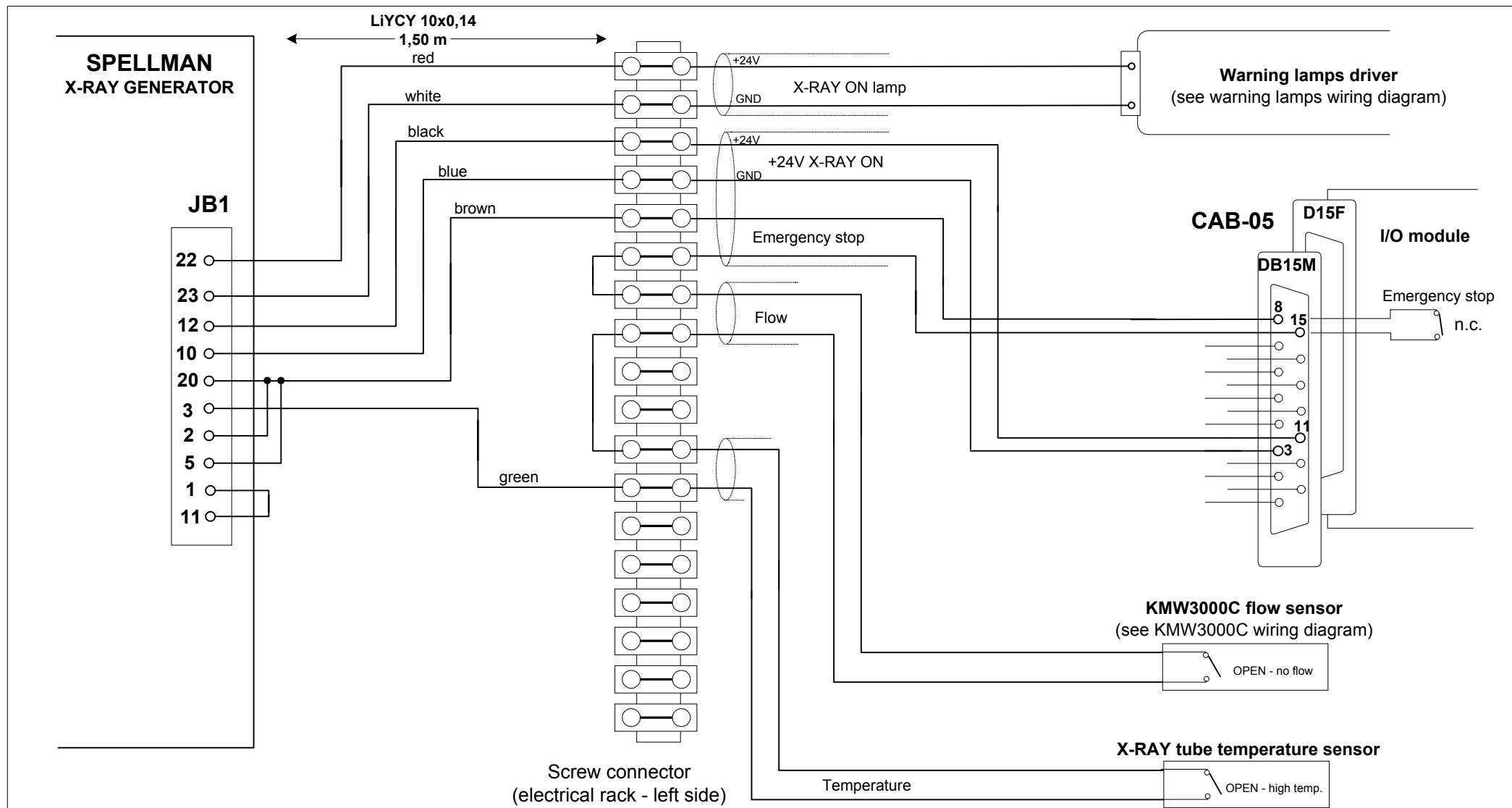
A. No.

**A**

Appr

Date

**04/2003**



DRG NO.

**EC-24-06-001-C**

DRAWN BY: **R. S.**

APPROVED BY:

TITLE:

**SPELLMAN x-ray generator**  
**Safety connections**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

REV. **A**

DATE: 01.2002

SHEET **1 of 1**

A. No.

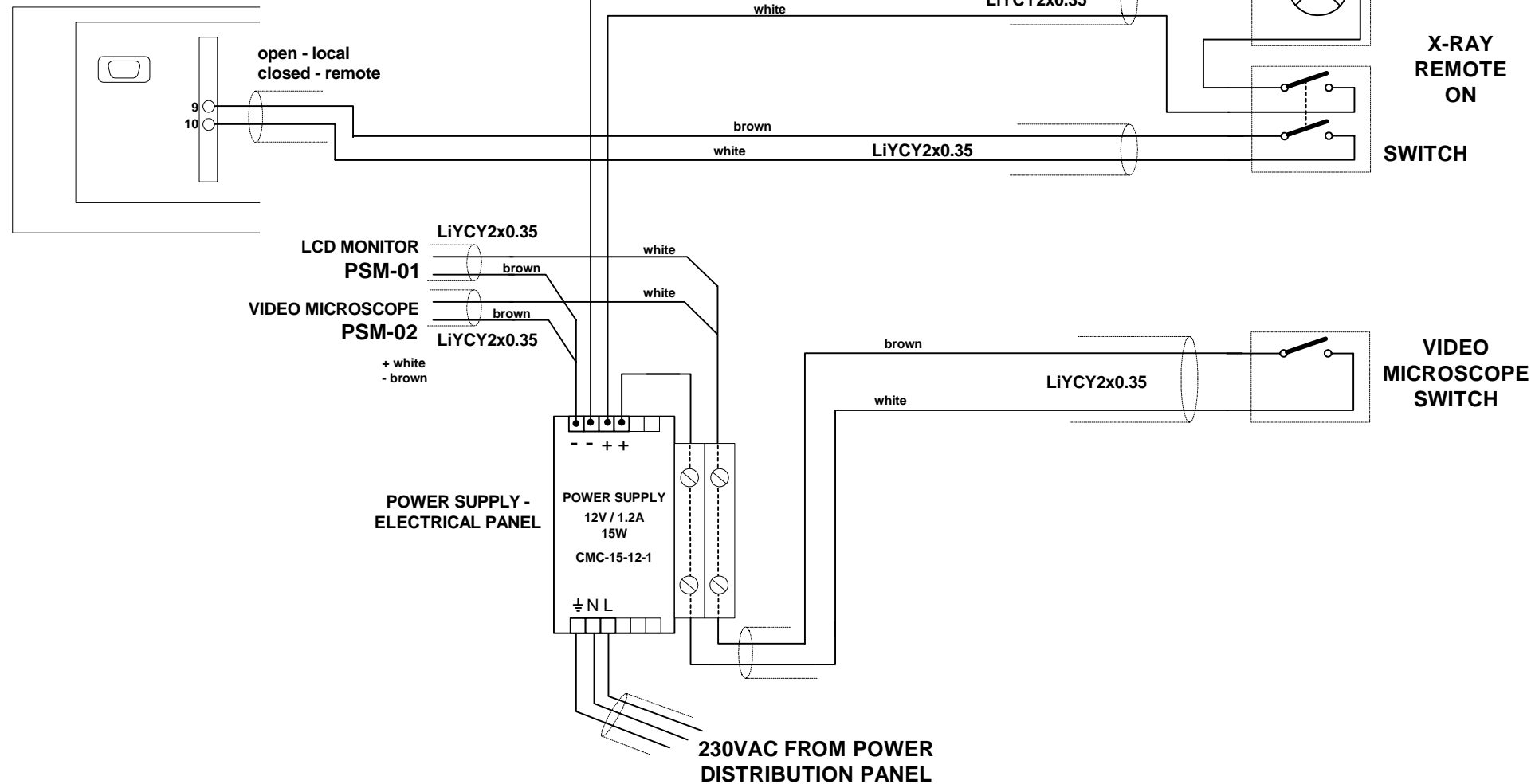
**A**

Appr

Date

28/03/2003

# **SPELLMAN X- RAY GENERATOR**



A. No.

Appr

Date



DRG NO. **EC-24-07-001-A**

DRAWN BY: R. S.

APPROVED BY:

TITLE: **Xcalibur PX system  
Electrical panel - x-ray remote switch**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

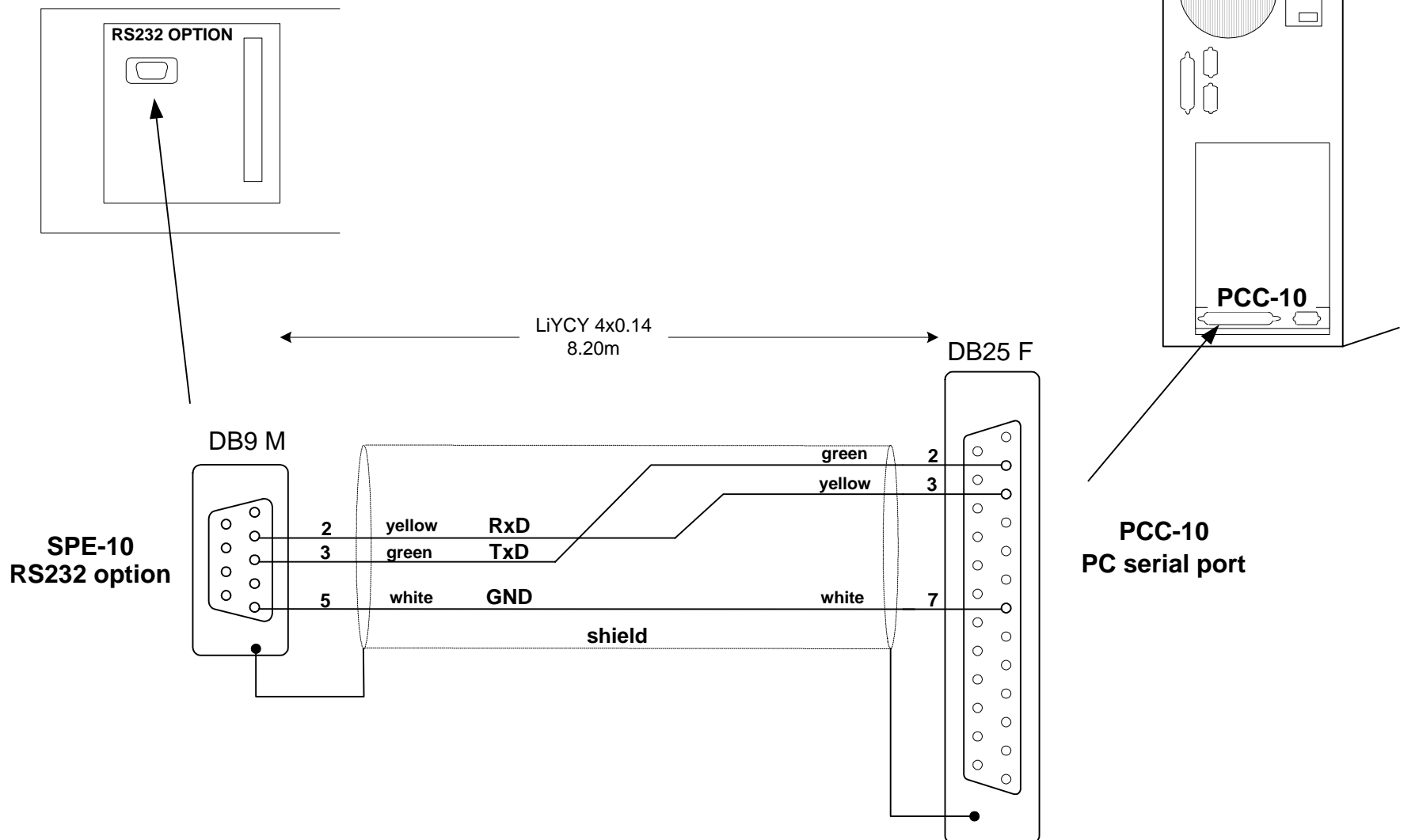
DATE: 08.2003

REV. **A**

SHEET **1 of 1**



# **SPELLMAN X-RAY GENERATOR**



A. No.

Appr

Date



DRG NO. **EC-24-06-001-D**

DRAWN BY: **R. S.**

APPROVED BY:

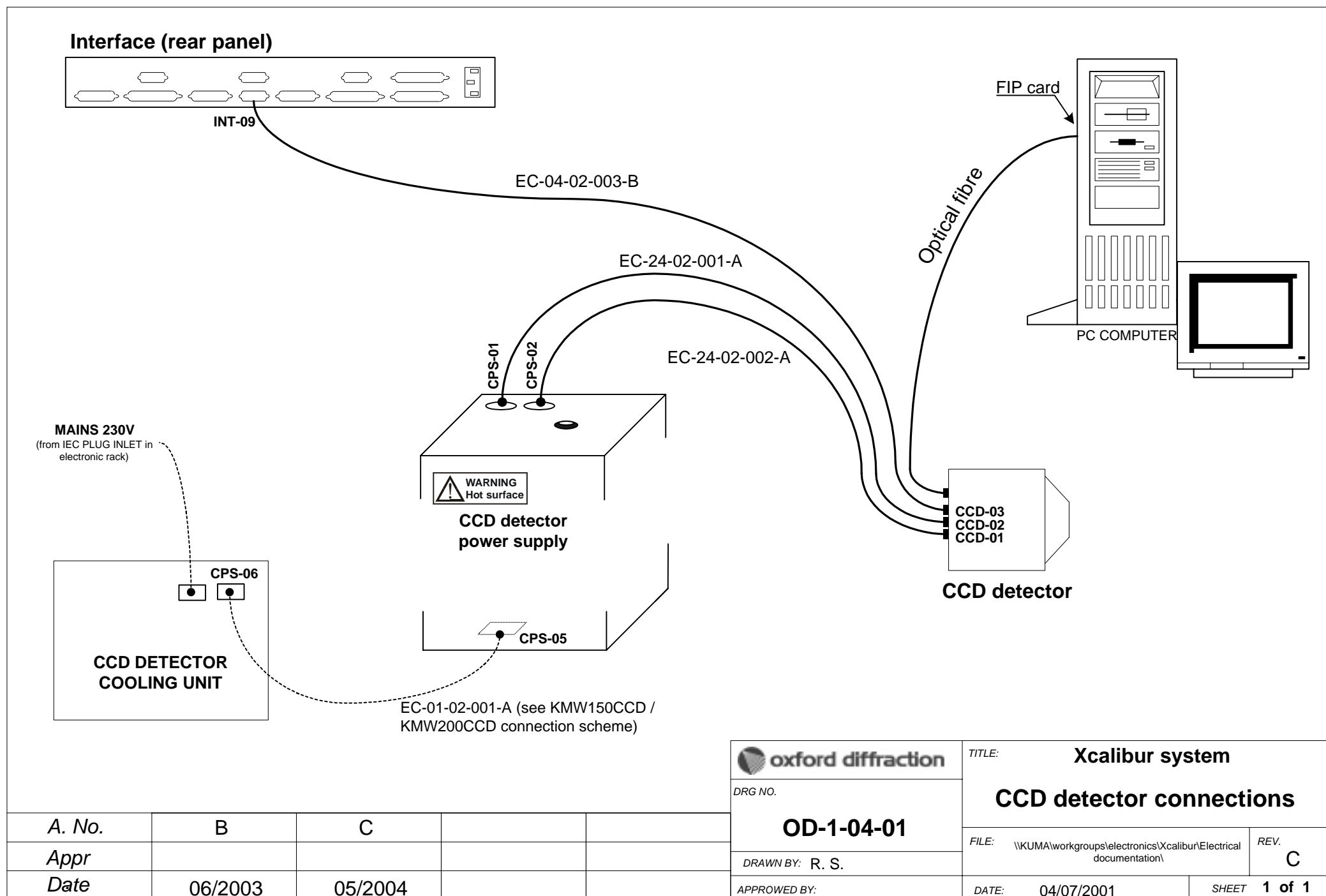
TITLE: **SPELLMAN x-ray generator  
RS232 cable**

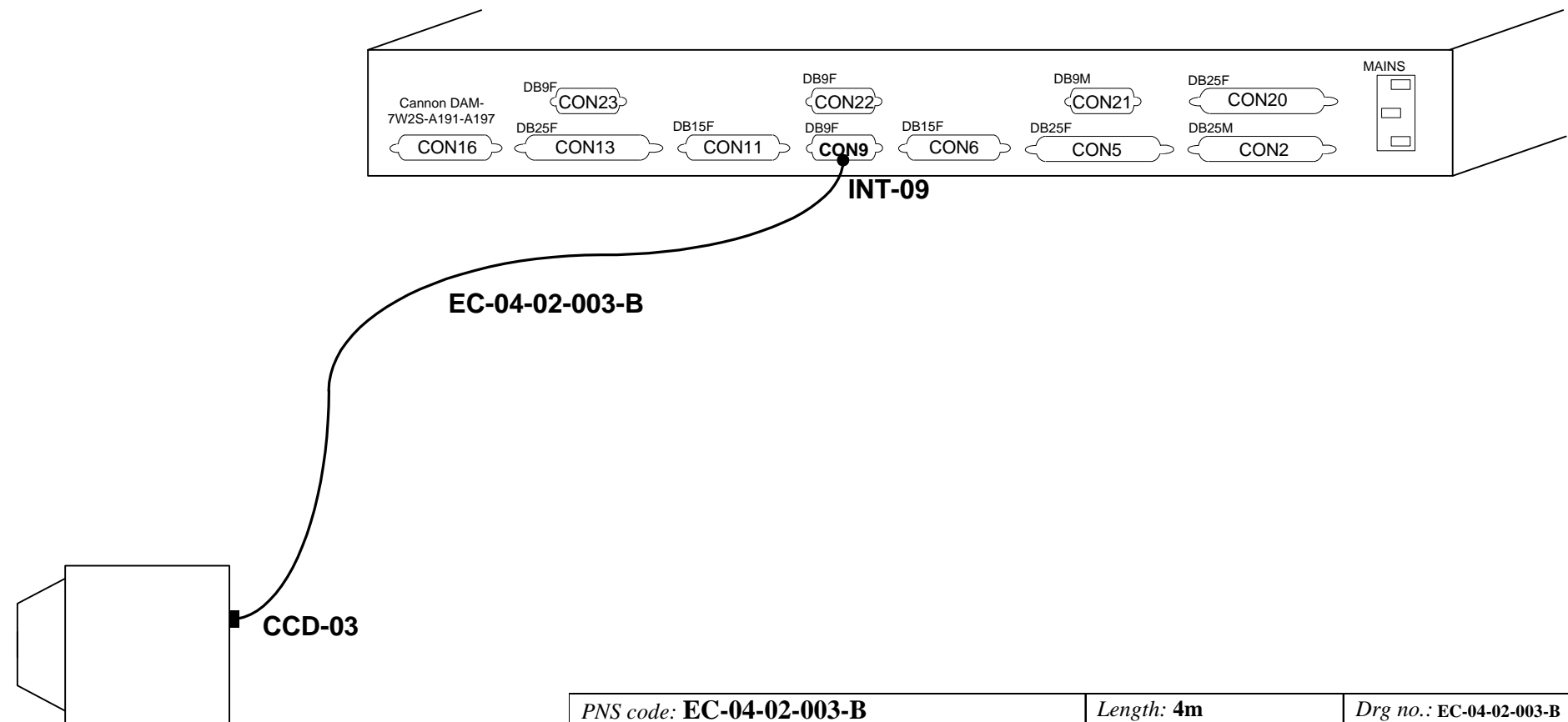
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

DATE: **10.2003**

REV. **A**


SHEET **1 of 1**

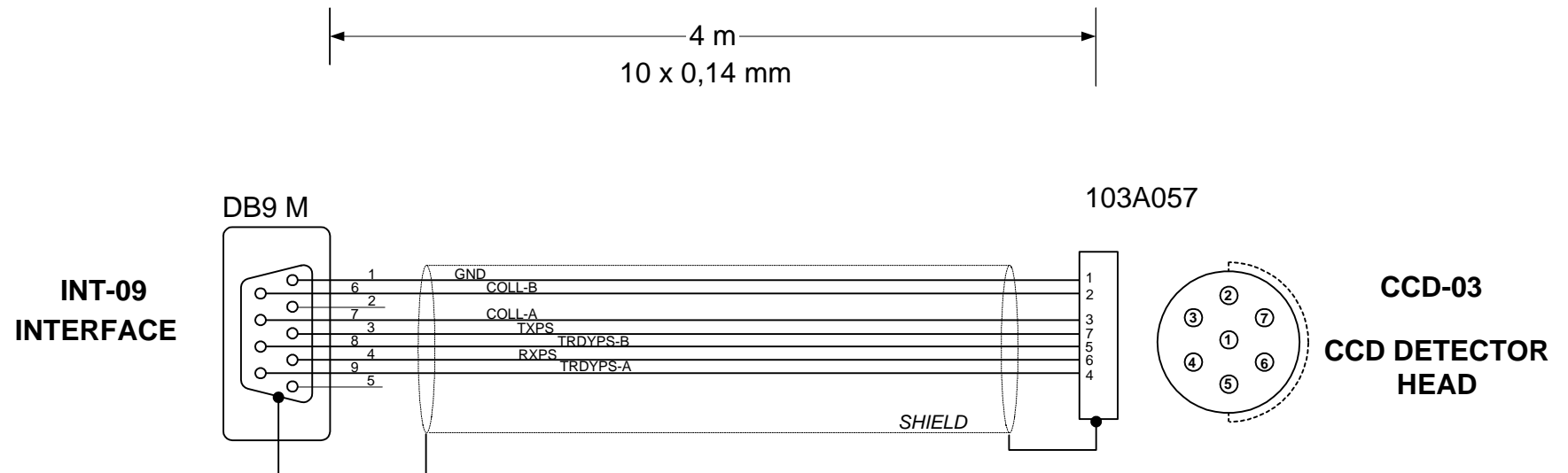





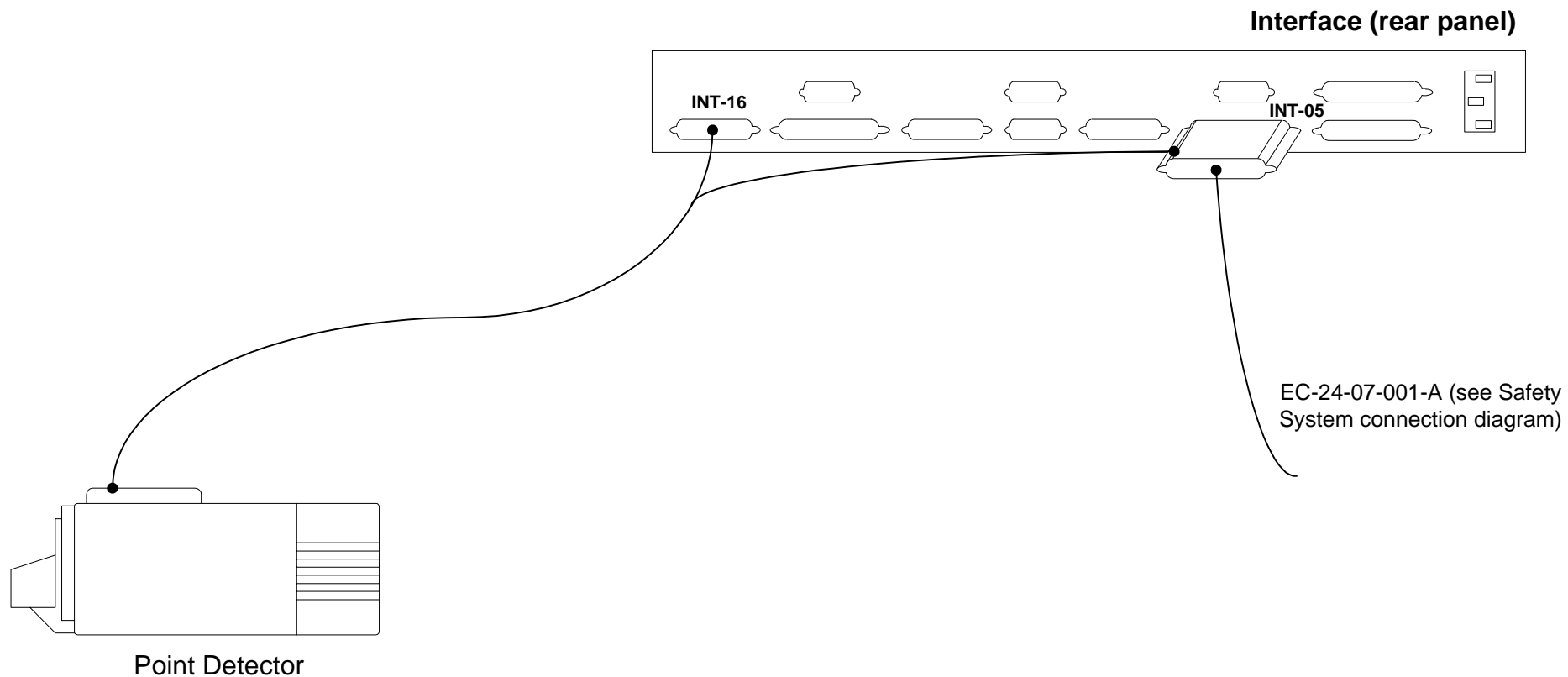
**CCD DETECTOR HEAD**


<i>PNS code:</i> <b>EC-04-02-003-B</b>		<i>Length:</i> <b>4m</b>	<i>Drg no.:</i> <b>EC-04-02-003-B</b>
<i>Description:</i> <b>Temperature and collision</b>			
<i>Cable:</i> <b>10 x 0.14mm2 shielded</b>	<i>Connector 1:</i> <b>INT-09</b>		<i>Connector 2:</i> <b>CCD-03</b>
	<i>PNS code:</i> <b>EA-06-00-001-A</b>		<i>PNS code:</i> <b>EA-06-00-037-A</b>
<i>PNS code:</i> <b>EA-05-00-004-A</b>	<i>Type:</i> <b>DB9 male</b>		<i>Type:</i> <b>103A057</b>
<i>Type:</i> <b>LiYCY10 x 0.14 shielded</b>	<i>Location:</i> <b>Interface – rear panel</b>		<i>Location:</i> <b>CCD detector head</b>

					<div> oxford diffraction</div>	<div>TITLE: <b>CCD detector - temperature and collision</b></div>		
					<div>DRG NO.  <b>EC-04-02-003-B</b></div>			
<div>A. No.</div>					<div>DRAWN BY: <b>R. S.</b></div>	<div>FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\</div>		<div>REV. <b>A</b></div>
<div>Appr</div>					<div>APPROVED BY:</div>	<div>DATE: 06/2003</div>		<div>SHEET <b>1 of 2</b></div>
<div>Date</div>								

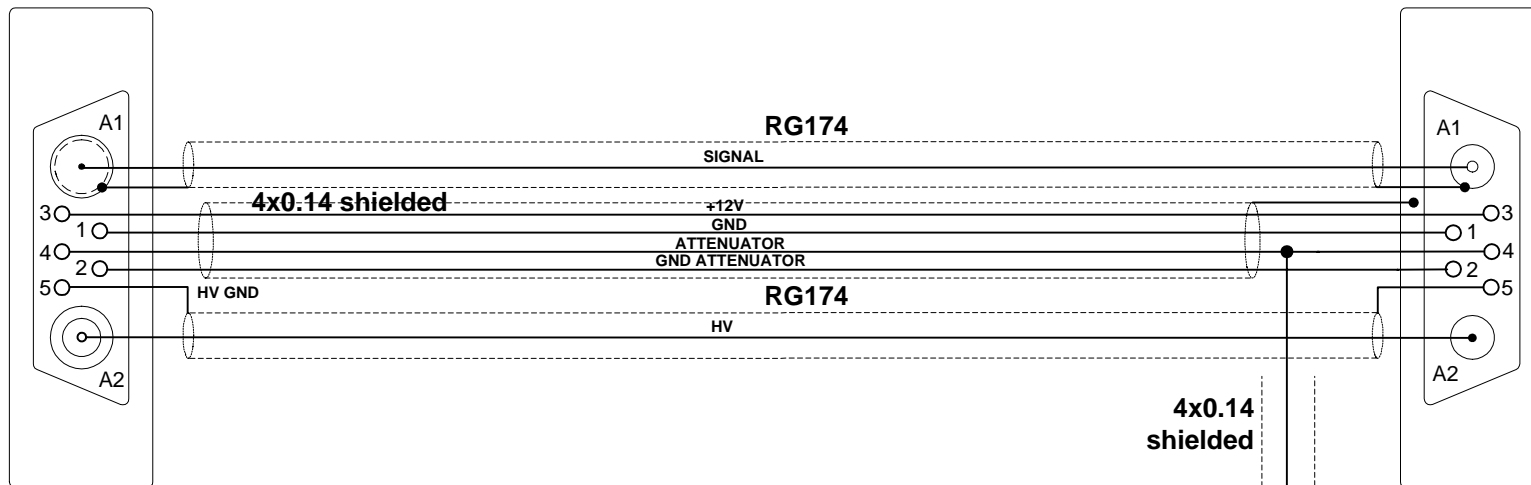


					<div> oxford diffraction</div>	TITLE: <b>CCD detector - temperature and collision</b>		
					DRG NO.  <b>EC-04-02-003-B</b>			
A. No.					DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. <b>A</b>
Appr					APPROVED BY:	DATE: 06/2003		SHEET <b>2 of 2</b>
Date								

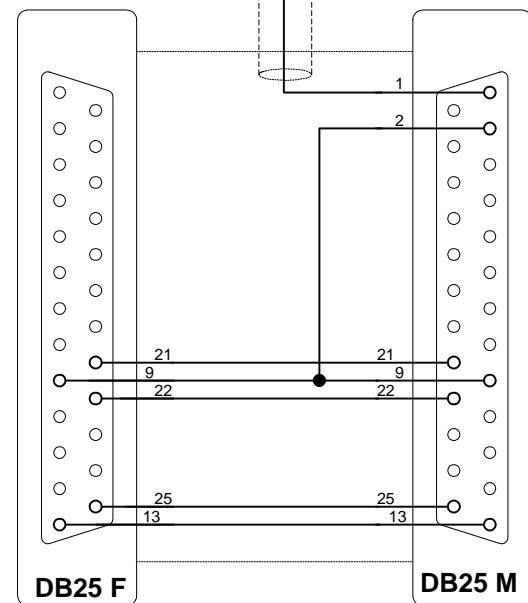
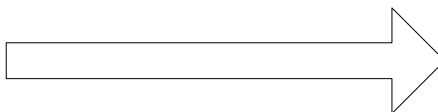


					<div> oxford diffraction</div>	<div>TITLE:</div> <div>Xcalibur 2</div> <div>Point Detector connections</div>			
					DRG NO.				
					EC-24-02-010-A	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\			REV. A
					DRAWN BY: R. S.				
					APPROVED BY:	DATE: Nov. 2002		SHEET 1 of 2	
A. No.									
Appr									
Date									

**PDT-01  
POINT  
DETECTOR**



**EC-24-07-001-A**  
from safety module



DRG NO.

**EC-24-02-010-A**

DRAWN BY: R. S.

APPROVED BY:

TITLE:

**Xcalibur system  
Point Detector connections**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

REV.  
**A**

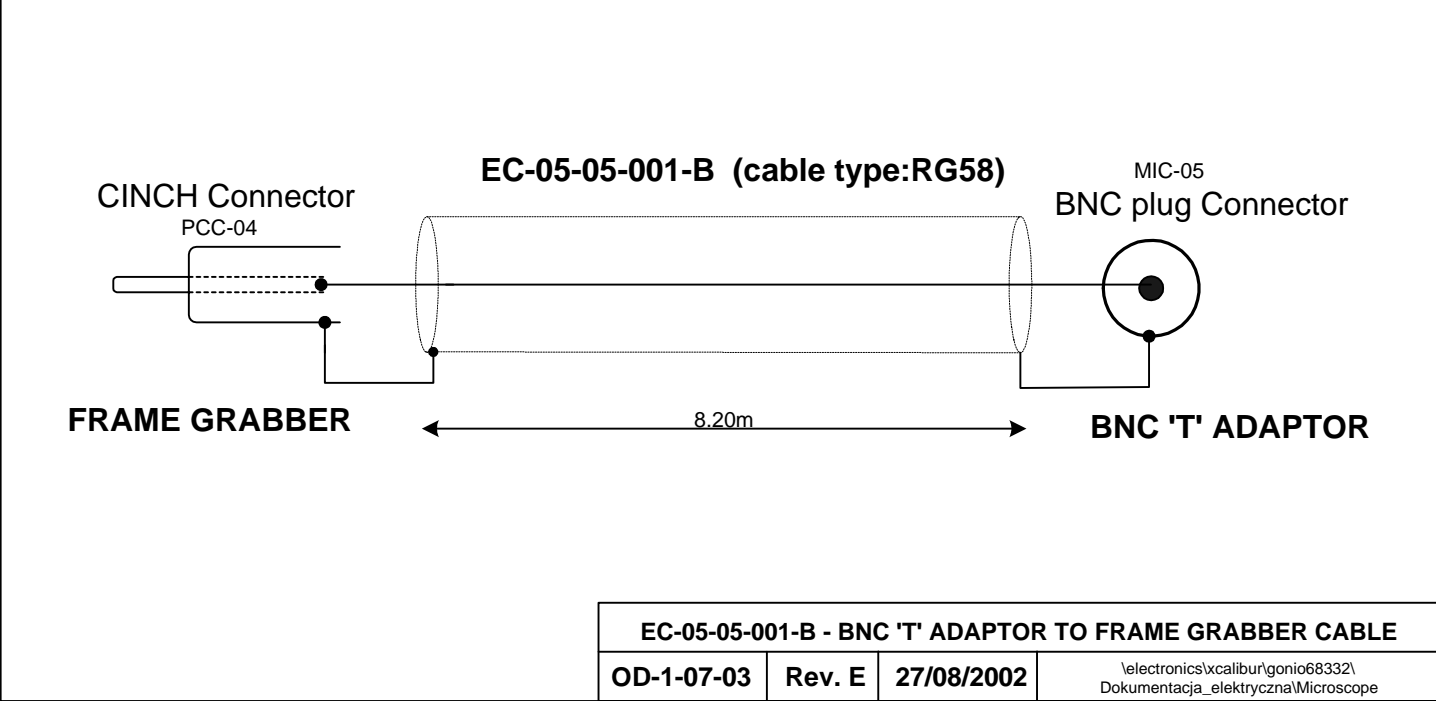
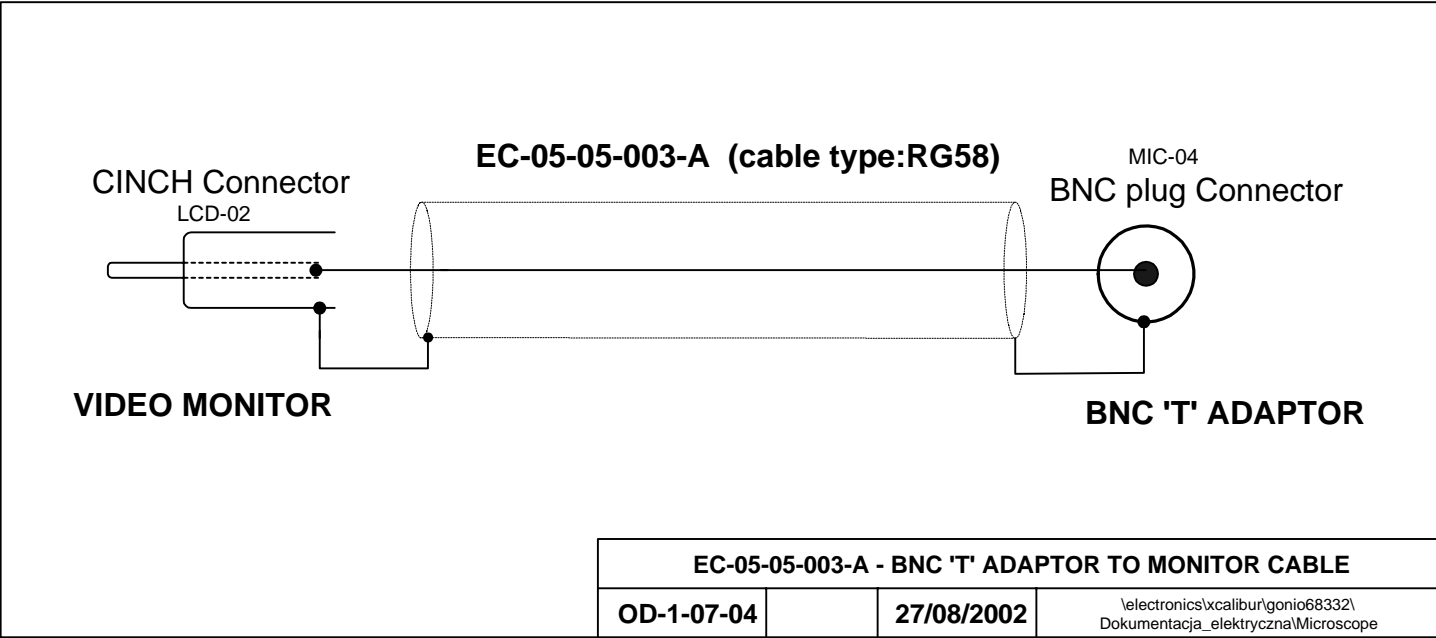
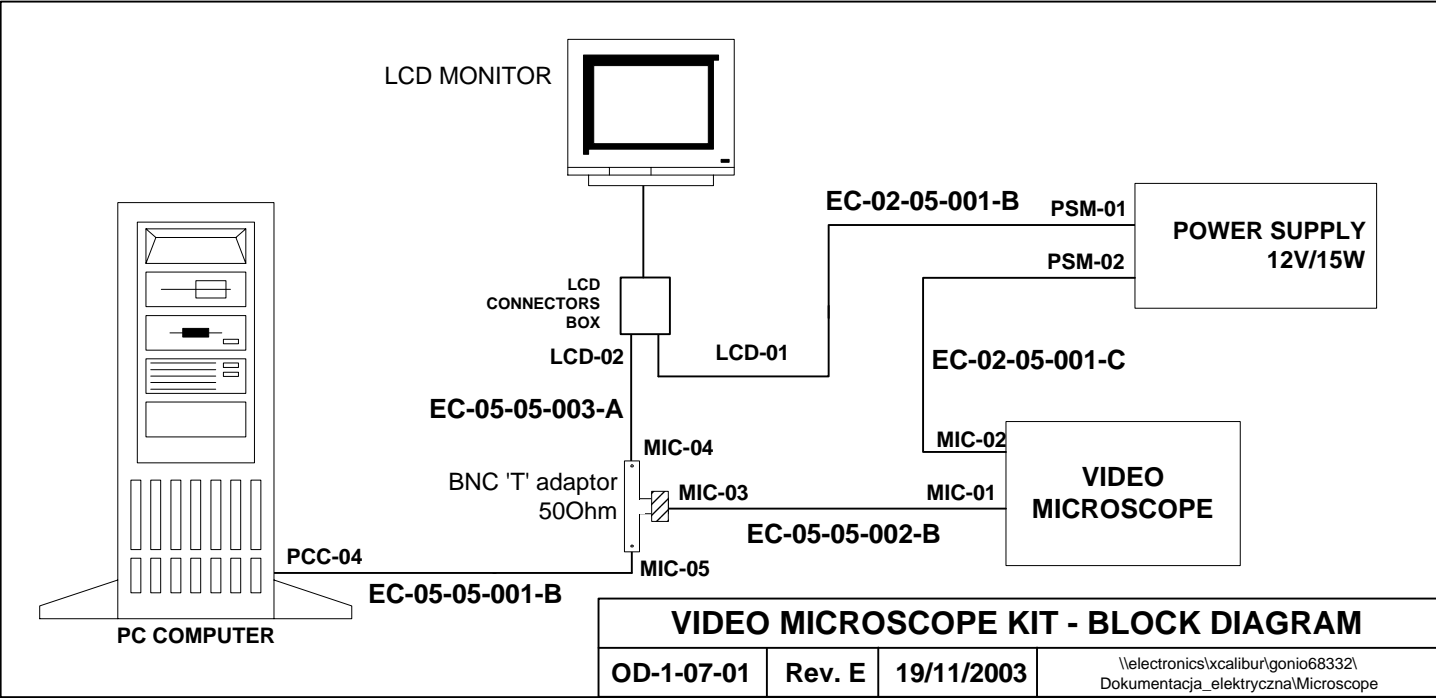
DATE: Nov. 2002

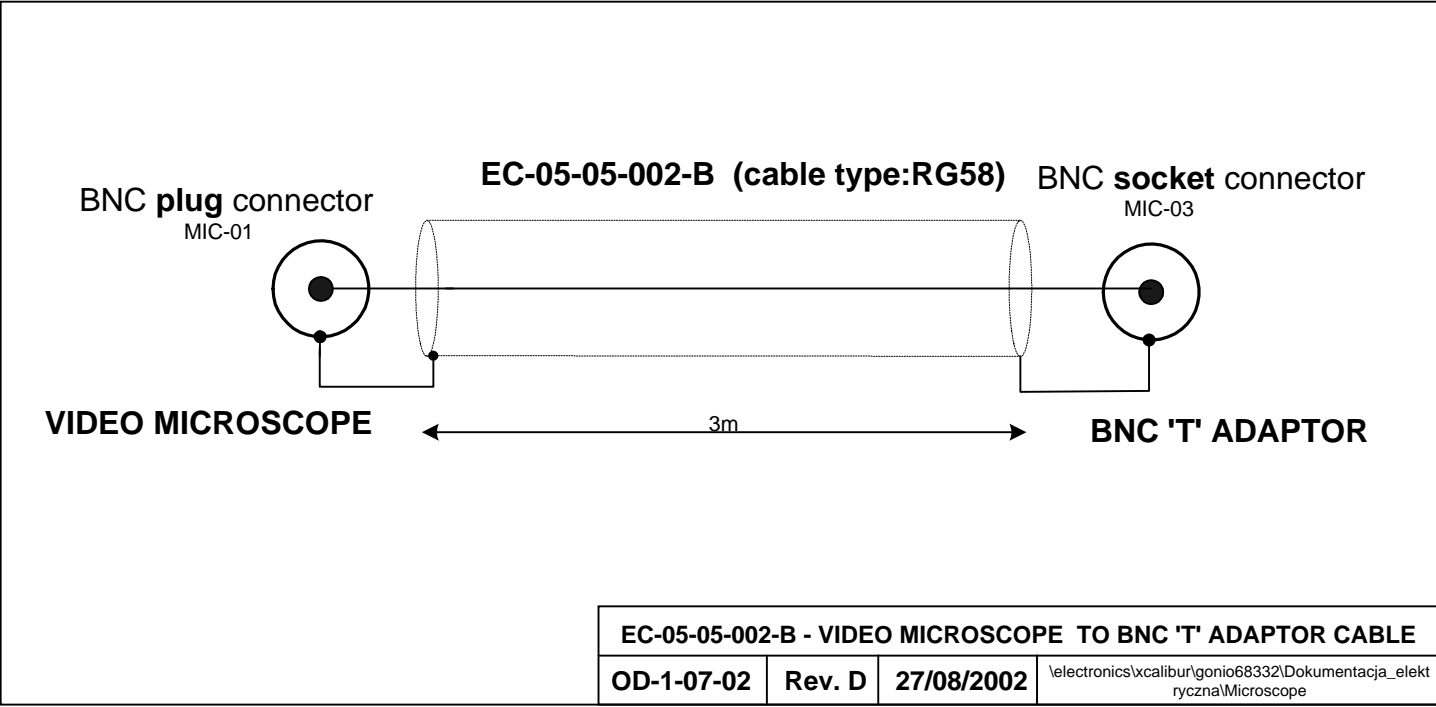
SHEET **2 of 2**

A. No.

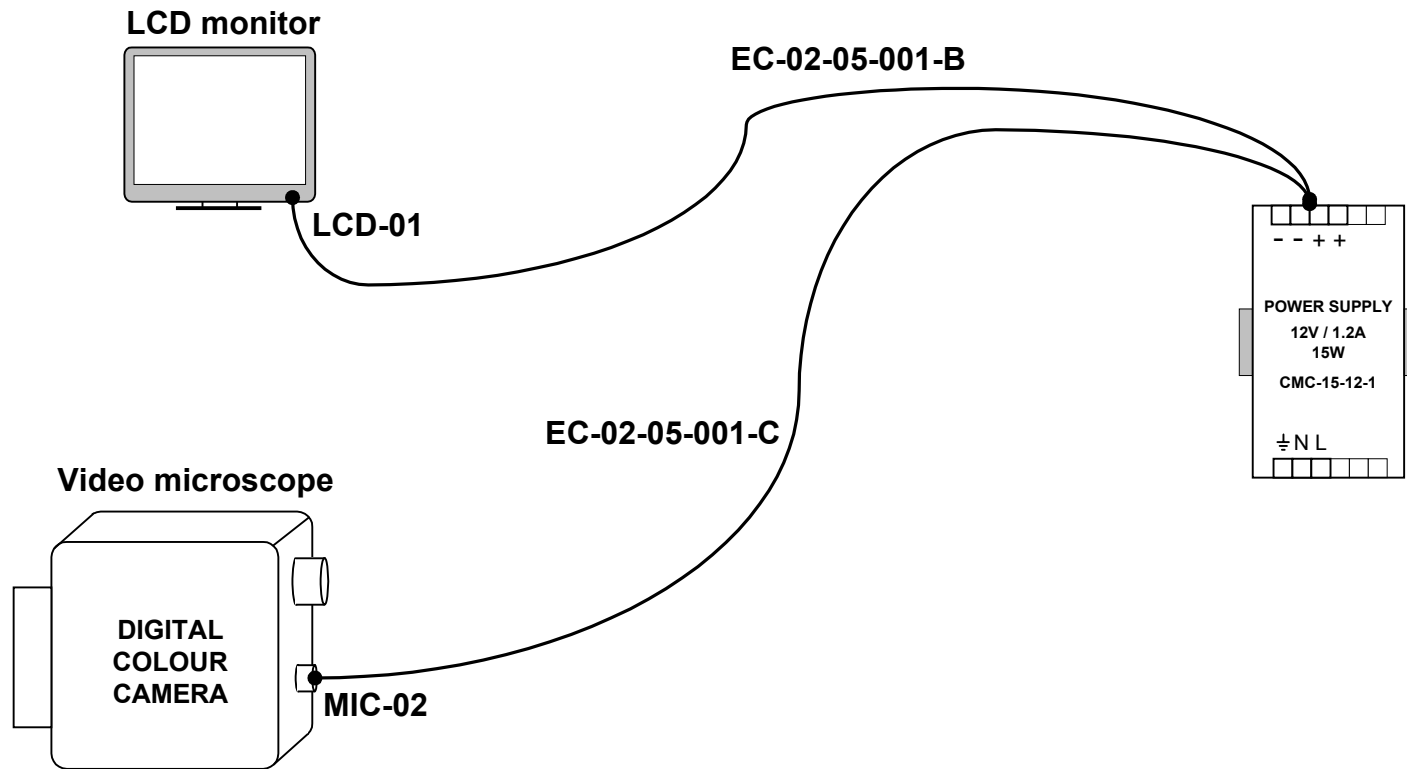
Appr

Date




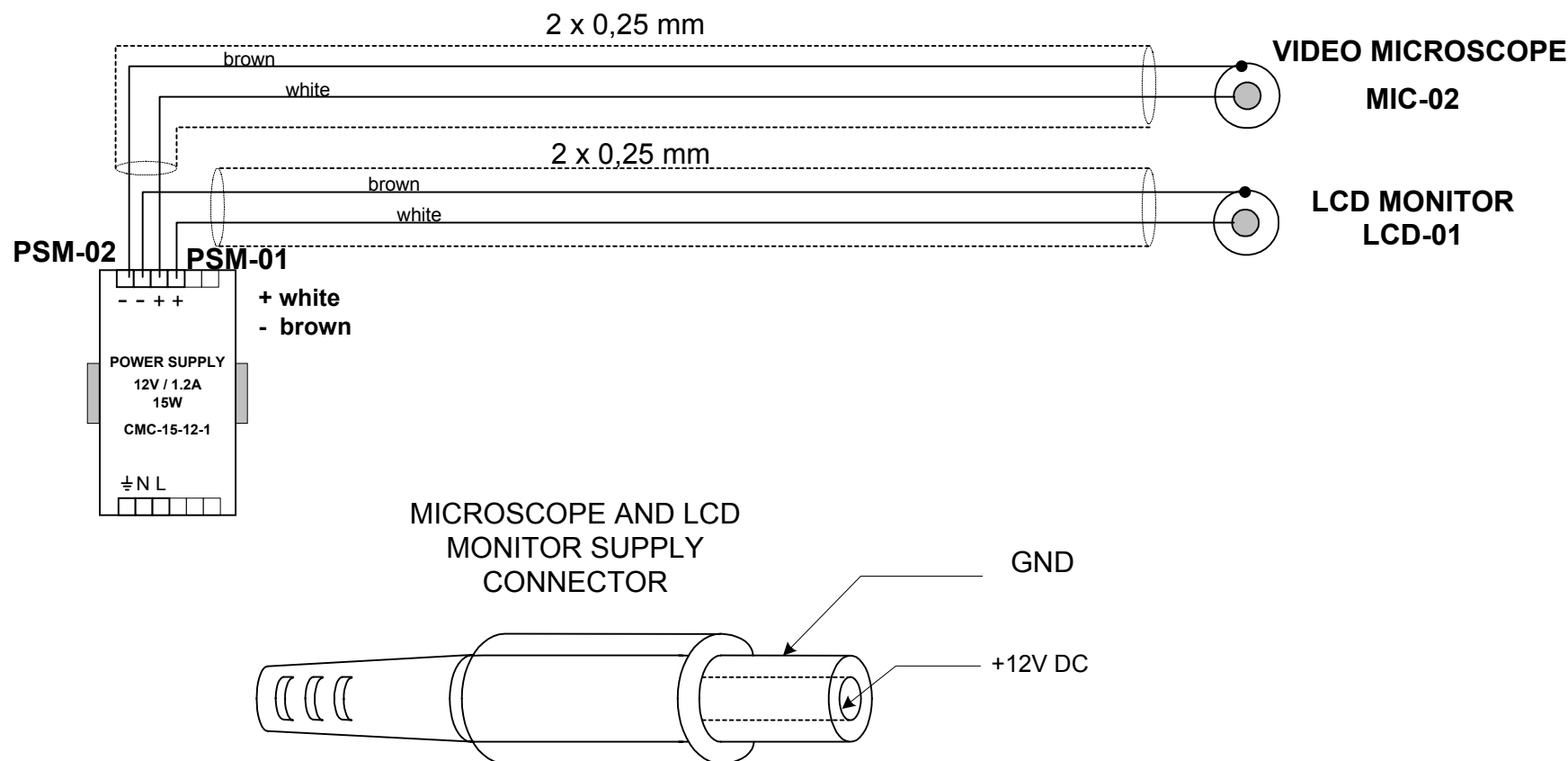





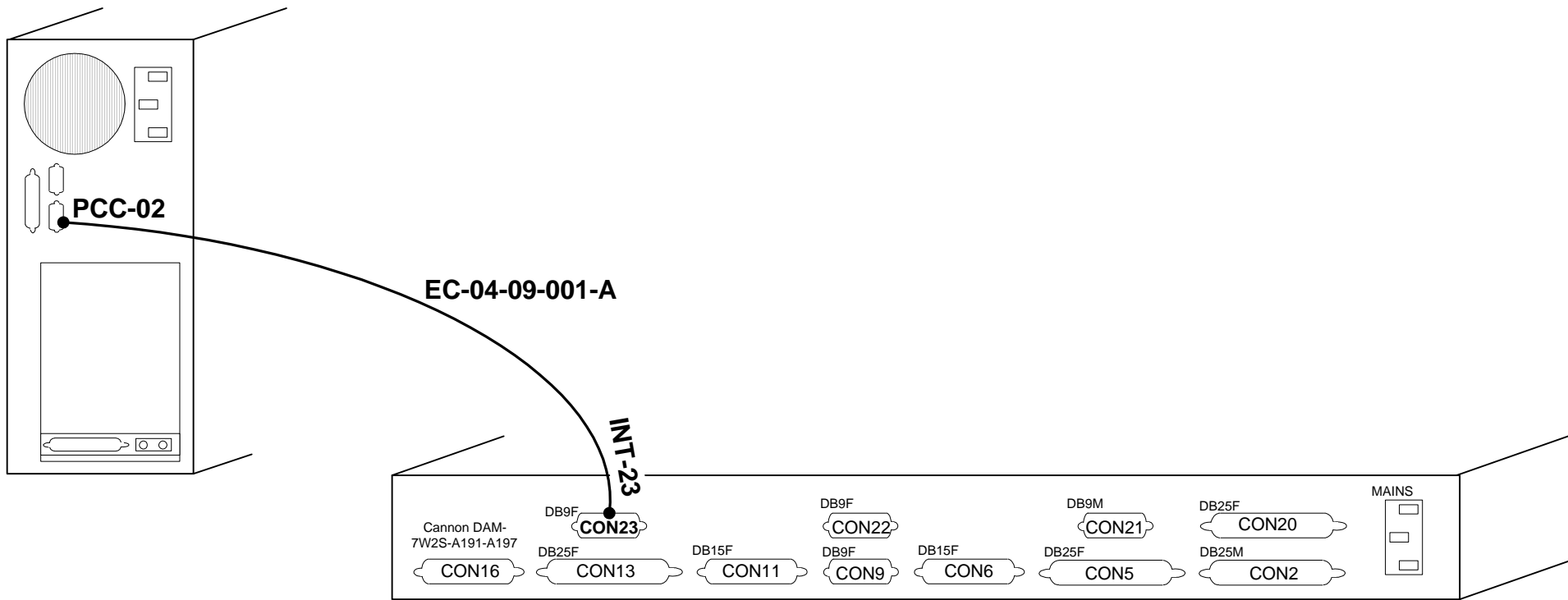


PNS code: EC-02-05-001-B, EC-02-05-001-C		Length: 2x1.2m	Drg no.: EC-02-05-001-B	
Description: LCD monitor and video microscope supply				
Cable: 2 x 0.35mm2 shielded	Connector 1: PSM-01, PSM-02	Connector 2: MIC-02	Connector 3: LCD-01	
	PNS code:	PNS code: EA-06-00-018-A	PNS code: EA-06-00-018-A	
PNS code: EA-05-00-015-A	Type: screw connector	Type: T252	Type: T252	
Type: LiYCY2x0.35mm2	Location: power supply	Location: Video microscope	Location: LCD monitor	


					<div><div> <b>oxford diffraction</b></div><div>DRG NO.</div><div><b>EC-02-05-001-B</b></div><div>DRAWN BY: <b>R. S.</b></div><div>APPROVED BY:</div></div>	<div>TITLE: <b>LCD monior and video microscope power supply cable</b></div> <div><div>FILE: \\KUMA\workgroups\electronics\gonio68332\cables</div><div>REV. <b>A</b></div></div> <div><div>DATE: 06/2003</div><div>SHEET <b>1 of 2</b></div></div>				
<i>A. No.</i>										
<i>Appr</i>										
<i>Date</i>										

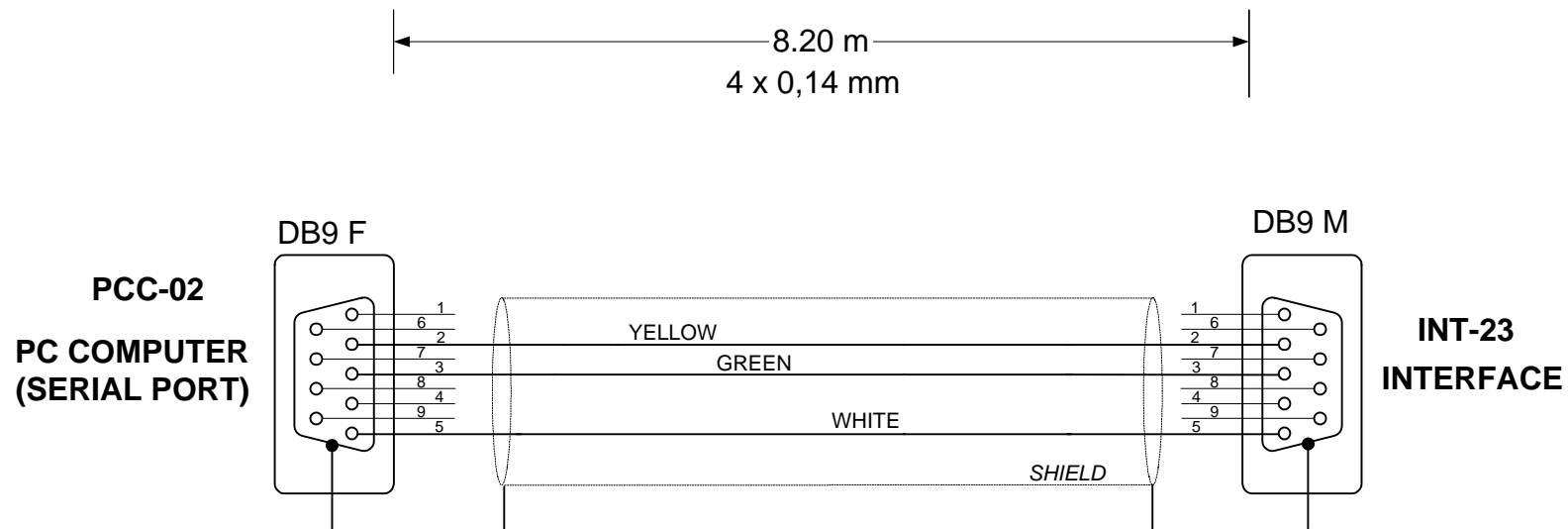



					 <b>oxford diffraction</b>	TITLE:	
					DRG NO.	<b>LCD monior and video microscope power supply cable</b>	
					<b>EC-02-05-001-B</b>		
					DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\gonio68332\cables	REV.
					APPROVED BY:	DATE: 06/2003	SHEET <b>2 of 2</b>
A. No.							
Appr							
Date							

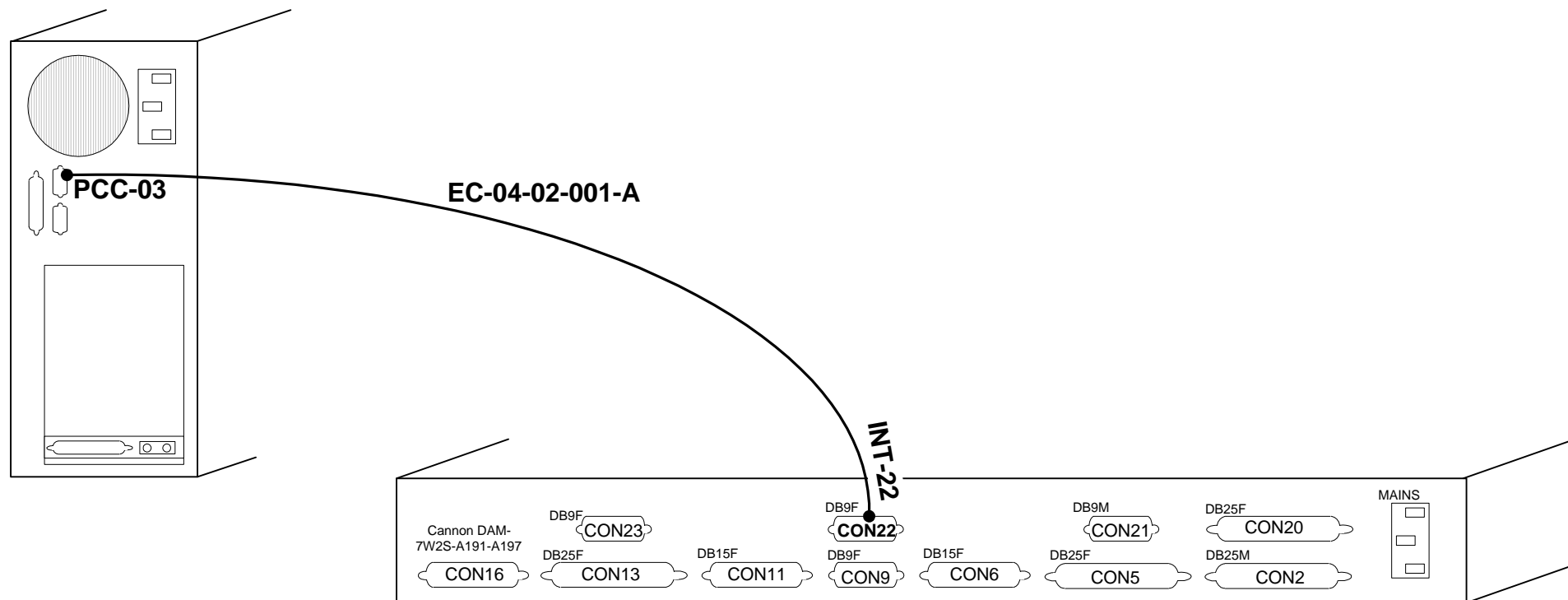


PNS code: <b>EC-04-09-001-A</b>		Length: <b>8,80m</b>	Drg no.: <b>EC-04-09-001-A</b>
Description: <b>Interface communication</b>			
Cable: <b>4 x 0.14mm2 shielded</b>		Connector 1: <b>INT-23</b>	Connector 2: <b>PCC-02</b>
		PNS code: <b>EA-06-00-001-A</b>	PNS code: <b>EA-06-00-002-A</b>
PNS code: <b>EA-05-00-002-A</b>		Type: <b>DB9 male</b>	Type: <b>DB9 female</b>
Type: <b>LiYCY4 x 0.14 w ekranie</b>		Location: <b>Interface – rear panel</b>	Location: <b>PC (serial port)</b>


					<div> oxford diffraction</div>	<div>TITLE: Xcalibur system</div> <div>Interface RS232 cable</div>		
					DRG NO. <div>EC-04-09-001-A</div>			
A. No.					DRAWN BY: R. S.	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. A
Appr					APPROVED BY:	DATE: 04/07/2001		SHEET 1 of 2
Date								

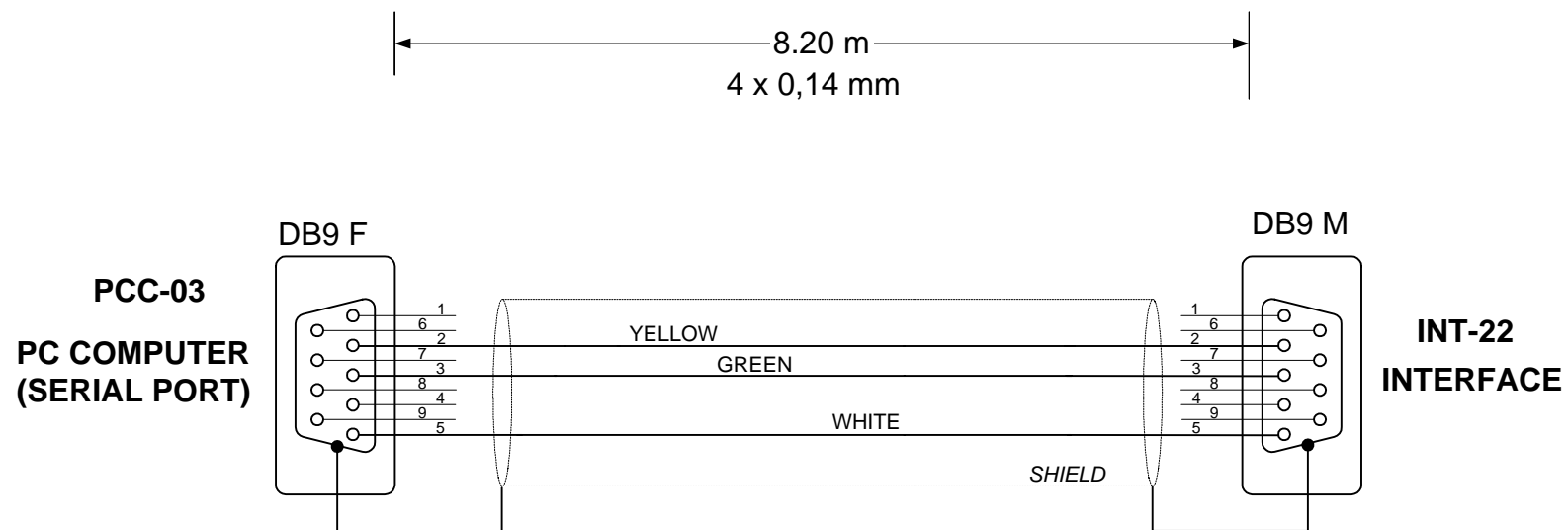



					 <b>oxford diffraction</b>	<b>TITLE:</b> <b>Xcalibur system</b> <b>Interface RS232 cable</b>					
					DRG NO.  <b>EC-04-09-001-A</b>						
					<b>A. No.</b>					<b>FILE:</b> \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	<b>REV.</b> <b>A</b>
					<b>Appr</b>					<b>DRAWN BY:</b> <b>R. S.</b>	
<b>Date</b>					<b>APPROVED BY:</b>	<b>DATE:</b> 04/07/2001	<b>SHEET</b> 2 of 2				

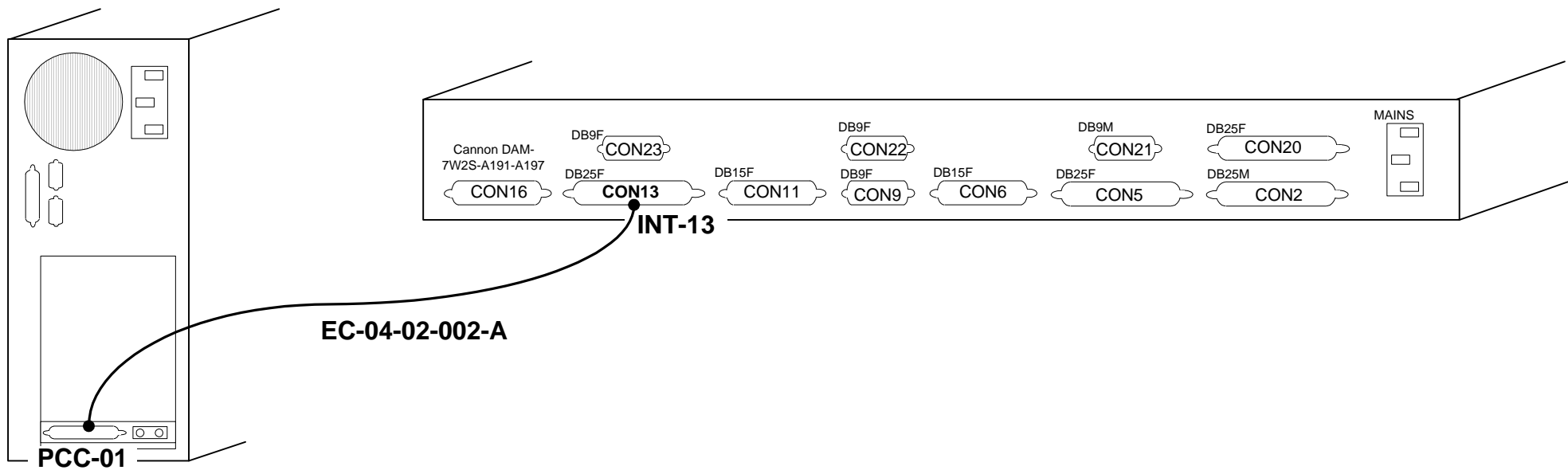


PNS code: <b>EC-04-02-001-A</b>		Length: <b>8.20m</b>	Drg no.: <b>EC-04-02-001-A</b>
Description: <b>CCD power supply communication</b>			
Cable: <b>4 x 0.14mm<sup>2</sup> shielded</b>	Connector 1: <b>INT-22</b>		Connector 2: <b>PCC-03</b>
	PNS code: <b>EA-06-00-001-A</b>		PNS code: <b>EA-06-00-002-A</b>
PNS code: <b>EA-05-00-002-A</b>	Type: <b>DB9 male</b>		Type: <b>DB9 female</b>
Type: <b>LiYCY4 x 0.14 shielded</b>	Location: <b>Interface – rear panel</b>		Location: <b>PC (serial port)</b>


					 DRG NO. <b>EC-04-02-001-A</b>	TITLE: <b>Xcalibur system CCD power supply to PC (RS232)</b>		
A. No.	B							
Appr					DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. <b>B</b>
Date	Dec. 2002				APPROVED BY:	DATE: <b>06/07/2001</b>	SHEET <b>1 of 2</b>	

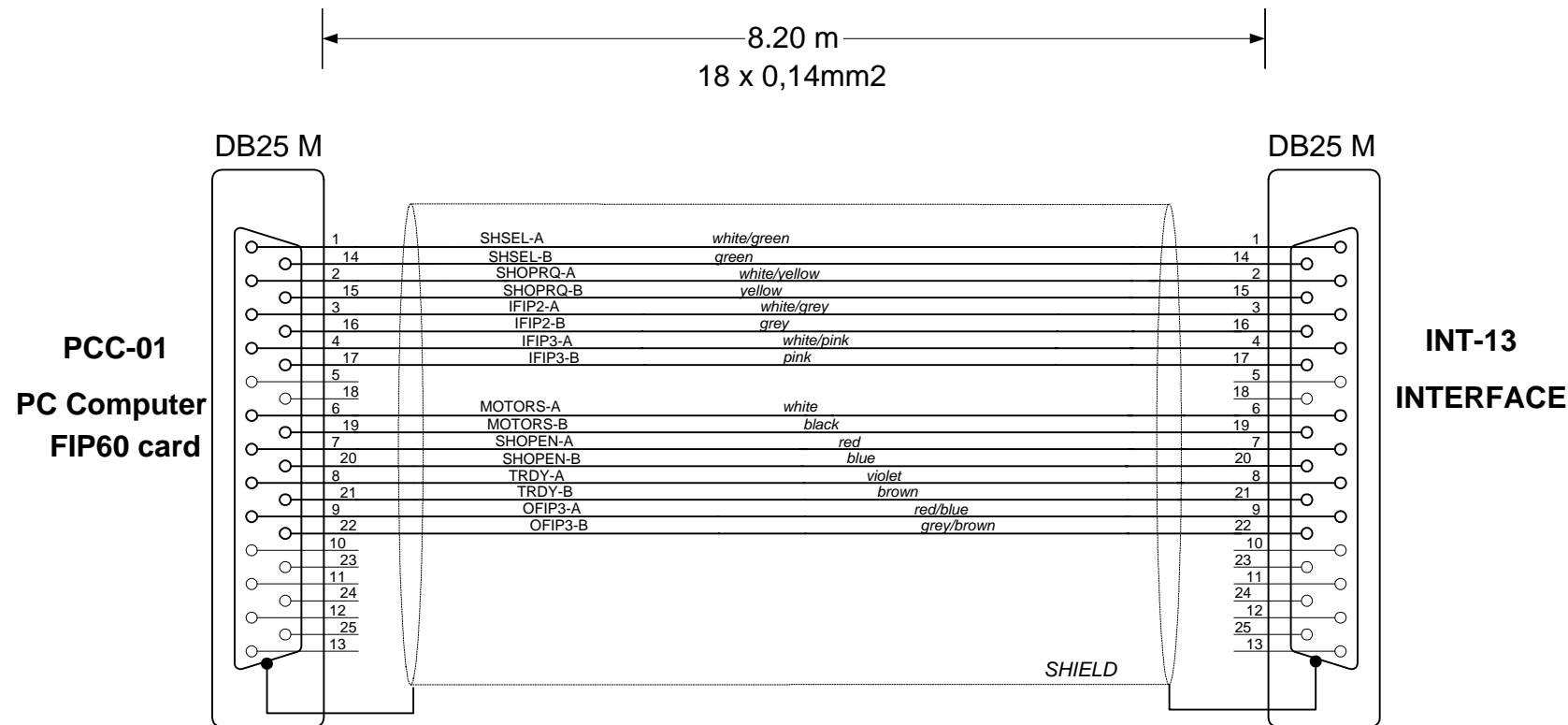



<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">   <b>oxford diffraction</b> </div> <div> <b>TITLE:</b>  <b>Xcalibur system</b>  <b>CCD power supply to PC</b>  <b>(RS232)</b> </div> </div>					<b>REV. B</b>	
					<b>FILE:</b> \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	
					<b>DATE:</b> 04/07/2001	
<b>A. No.</b>	B				<b>SHEET 2 of 2</b>	
<b>Appr</b>						
<b>Date</b>	Dec. 2002					
					<b>DRG NO.</b> <b>EC-04-02-001-A</b>	
					<b>DRAWN BY:</b> R. S.	
					<b>APPROVED BY:</b>	



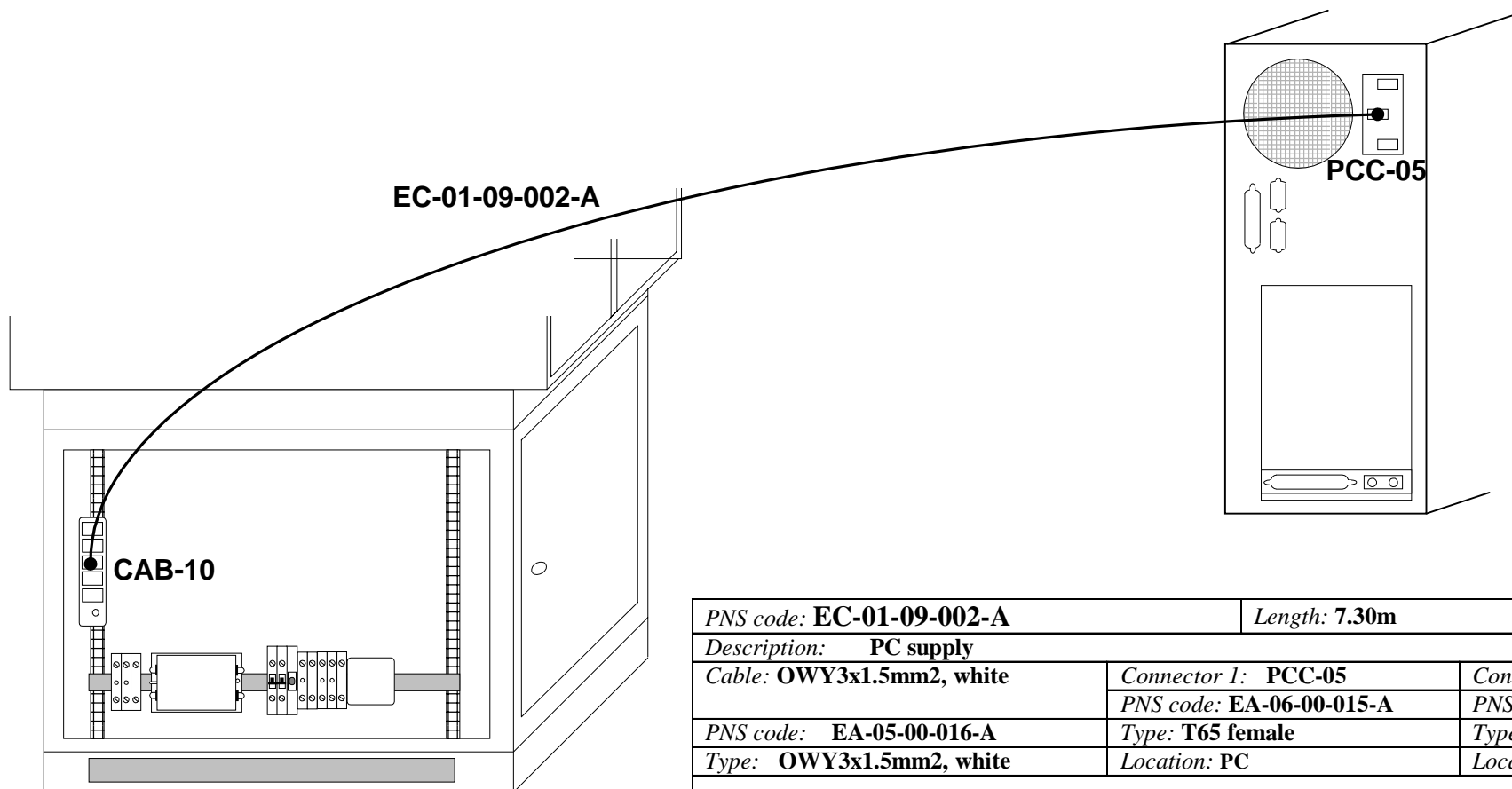
PNS code: <b>EC-04-02-002-A</b>		Length: <b>8.20m</b>	Drq no.: <b>EC-04-02-002-A</b>
Description: <b>FIP60 communication</b>			
Cable: <b>18 x 0.14mm<sup>2</sup> shielded</b>	Connector 1: <b>INT-13</b>		Connector 2: <b>PCC-01</b>
	PNS code: <b>EA-06-00-005-A</b>		PNS code: <b>EA-06-00-005-A</b>
PNS code: <b>EA-05-00-013-A</b>	Type: <b>DB25 male</b>		Type: <b>DB25 male</b>
Type: <b>LiYCY18 x 0.14 shielded</b>	Location: <b>Interface – rear panel</b>		Location: <b>PC (FIP60)</b>

					 DRG NO. <b>EC-04-02-002-A</b>	TITLE: <b>Xcalibur system FIP60 to Interface cable</b>		
A. No.	B							
Appr					DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. <b>B</b>
Date	Dec. 2002				APPROVED BY:	DATE: <b>06/07/2001</b>	SHEET <b>1 of 2</b>	




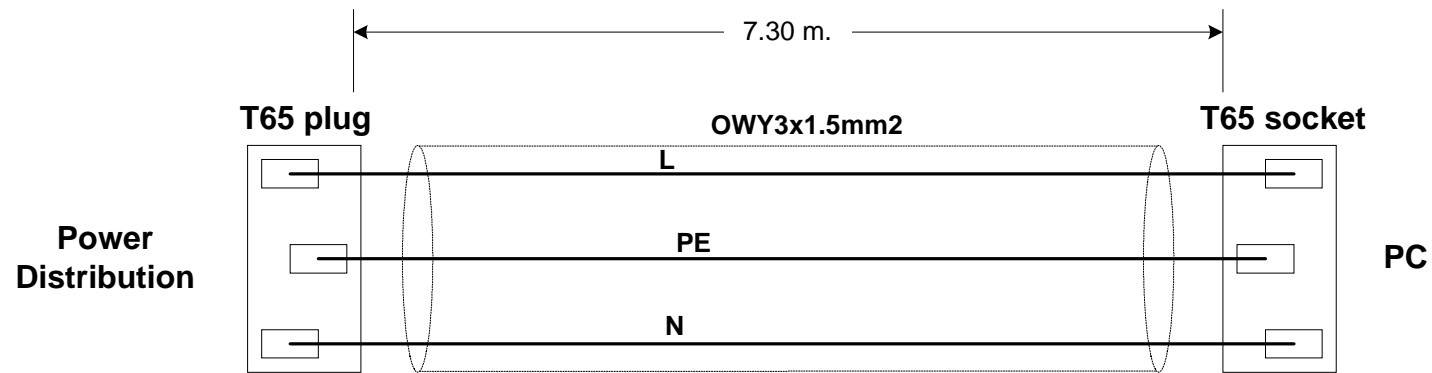
					<div> oxford diffraction</div>	<div>TITLE: Xcalibur system FIP60 to Interface cable</div>		
					DRG NO.  EC-04-02-002-A	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. B
A. No.	B				DRAWN BY: R. S.			
Appr					APPROVED BY:	DATE: 04/07/2001	SHEET	2 of 2
Date	Dec. 2002							






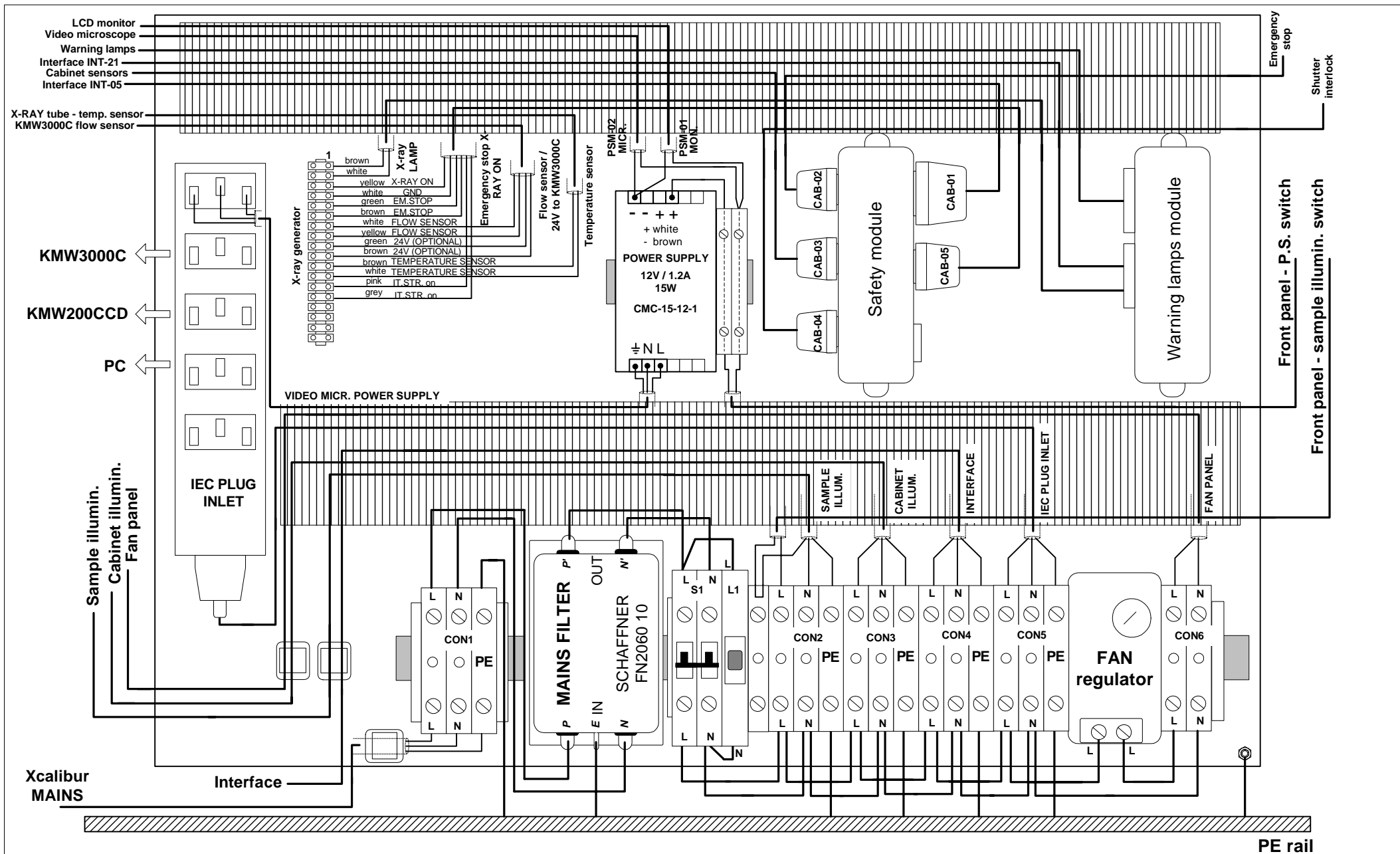
PNS code: <b>EC-01-09-002-A</b>		Length: <b>7.30m</b>	Drg no.: <b>EC-01-09-002-A</b>
Description: <b>PC supply</b>			
Cable: <b>OWY3x1.5mm2, white</b>	Connector 1: <b>PCC-05</b>		Connector 2: <b>CAB-10</b>
	PNS code: <b>EA-06-00-015-A</b>		PNS code: <b>EA-06-00-014-A</b>
PNS code: <b>EA-05-00-016-A</b>	Type: <b>T65 female</b>		Type: <b>T65 male</b>
Type: <b>OWY3x1.5mm2, white</b>	Location: <b>PC</b>		Location: <b>IEC plug inlet</b>


							TITLE: <b>PC</b>	
					DRG NO. <b>EC-01-09-002-A</b>		<b>230VAC Supply cable</b>	
					DRAWN BY: <b>R. S.</b>		FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>B</b>
A. No.	B				APPROVED BY:		DATE: <b>03/01/2002</b>	SHEET <b>1 of 2</b>
Appr								
Date	Dec. 2002							



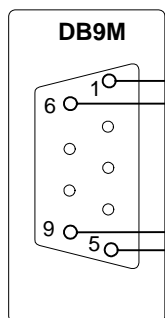
					<div><div><div>oxford diffraction</div></div><div>DRG NO.</div><div>EC-01-09-002-A</div><div>DRAWN BY: R. S.</div><div>APPROVED BY:</div></div> <td colspan="3">TITLE: PC  230VAC Supply cable</td> <td colspan="2">FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\REV: B</td>	TITLE: PC  230VAC Supply cable			FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\REV: B	
A. No.	B					DATE: 03/01/2001		SHEET 2 of 2		
Appr										
Date	Dec. 2002									



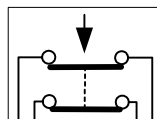


A. No.	B	D			 DRG NO. <b>EC-24-07-000-A</b> DRAWN BY: <b>R. S.</b> APPROVED BY:	TITLE: <b>Xcalibur PX system</b>		
Appr						Electrical panel		
Date	06/2003	09/2003				FILE: \\KUMA\workgroups\electronics\Xcalibu\Electrical documentation\	REV. <b>D</b>	
						DATE: <b>04.2003</b>	SHEET <b>1 of 1</b>	

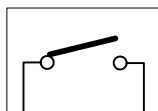
**SAFETY MODULE CAB-02**  
(see EC-24-07-000-C)



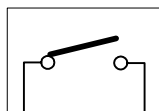
**EMERGENCY STOP**



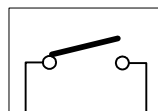
**CABINET ILLUMINATION**



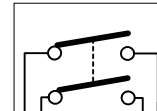
**VIDEO MICROSCOPE**



**SAMPLE ILLUMINATION**



**SAFETY OVERRIDE**



**Electrical rack  
front panel**

**FAN PANEL**

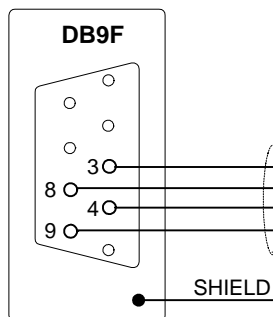
(see OD-1-11-01 - cabinet  
illumination scheme)


**ELECTRICAL PANEL  
(POWER DISTRIBUTION)**

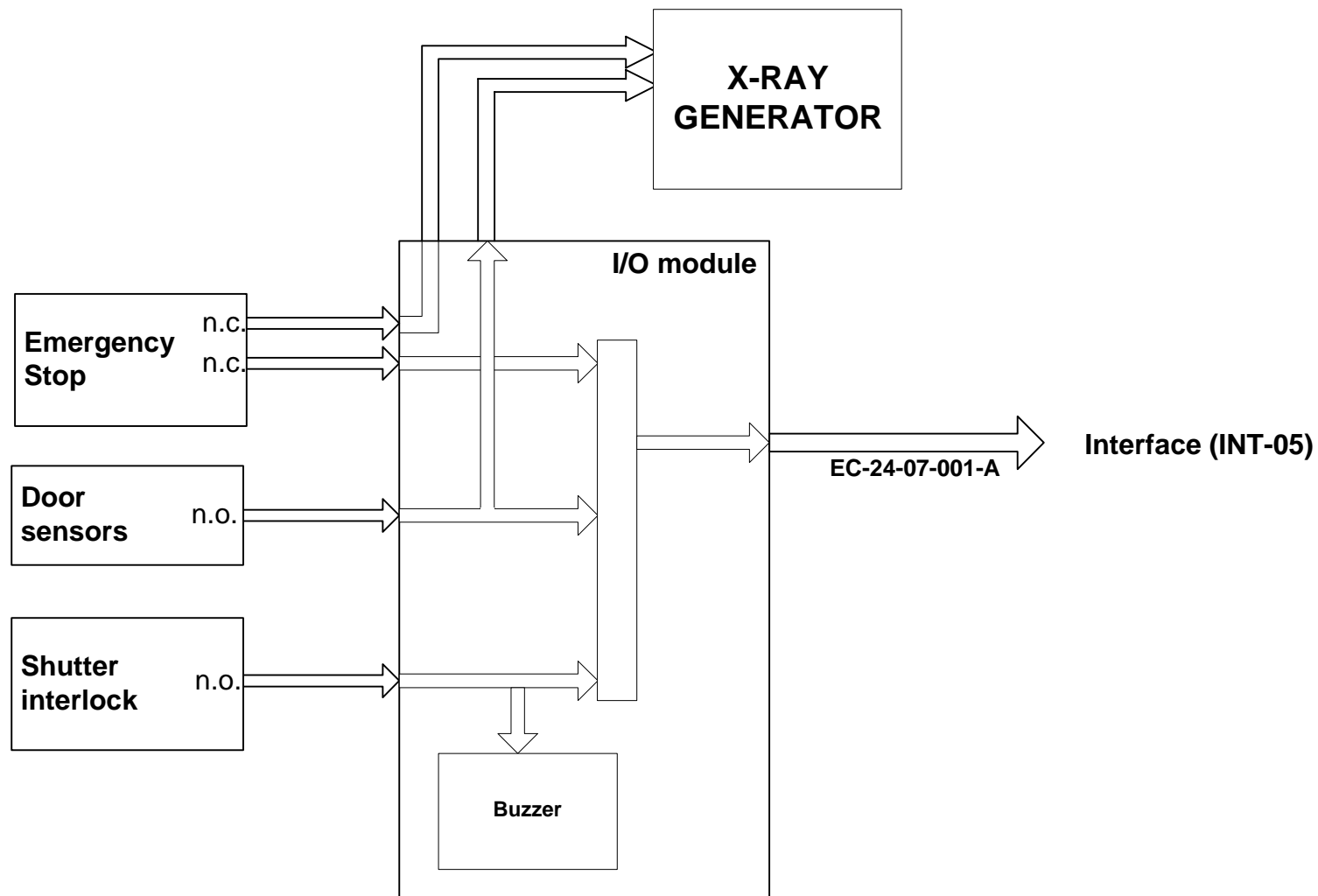
(see EC-24-07-000-C)


**SAFETY MODULE CAB-04**

(see EC-24-07-000-C)

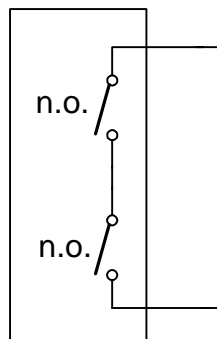


A. No.						TITLE: <b>Xcalibur system Front panel</b>		
Appr					DRG NO. <b>EC-24-07-010-A</b>	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. <b>A</b>	
Date					DRAWN BY: <b>R. S.</b>	DATE: <b>07.2003</b>	SHEET	<b>1 of 1</b>
					APPROVED BY:			

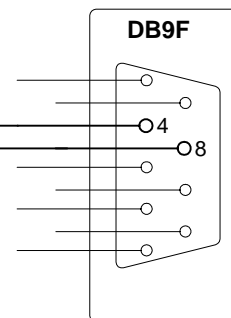


					<div> <b>oxford diffraction</b></div>	<div>TITLE: <b>Xcalibur system Safety system - block diagram</b></div>		
					DRG NO.  <b>OD-1-09-11</b>			
A. No.						FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\		REV. <b>A</b>
Appr					DRAWN BY: <b>R. S.</b>			
Date					APPROVED BY:	DATE: <b>01.2002</b>	SHEET <b>1 of 1</b>	

Door sensors



OWY2x1



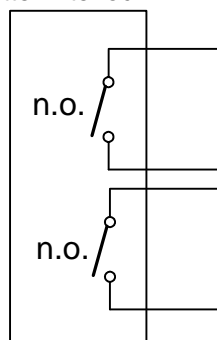
I/O module

DB9M

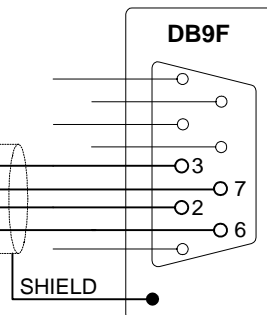
Sensors connector

CAB-03

Shutter interlock



LiYCY 4x0.14

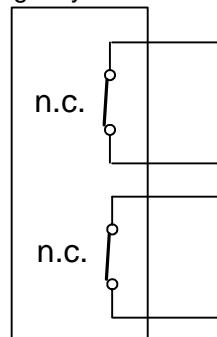


DB9M

Shutter interlock connector

CAB-04

Emergency button

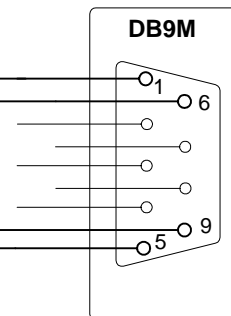


OWY2x1

1,1m

OWY2x1

1,1m



DB9F

Emergency button connector

CAB-02



DRG NO.

OD-1-09-11

DRAWN BY: R. S.

APPROVED BY:

TITLE:

**Xcalibur system  
Safety connections**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\

REV. C

DATE: 01.2002

SHEET 1 of 1

A. No.

B

C

Appr

Date

06/2002

09/2003

I/O module

CAB-01

D25F

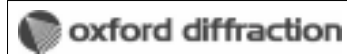
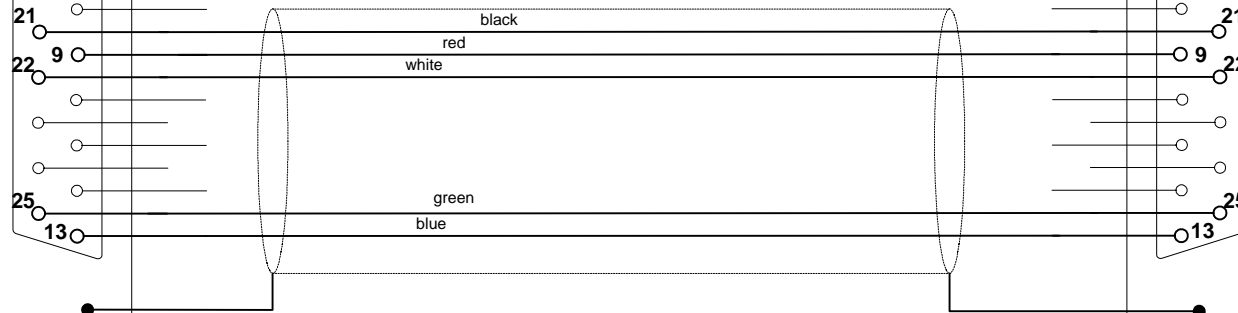
DB25M

DB25M

EC-24-07-001-A

LiYCY10x0.14

INT-05  
INTERFACE



DRG NO.

EC-24-07-001-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

Xcalibur system  
Safety connections

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical  
documentation\

REV.  
A

DATE: 01.2002

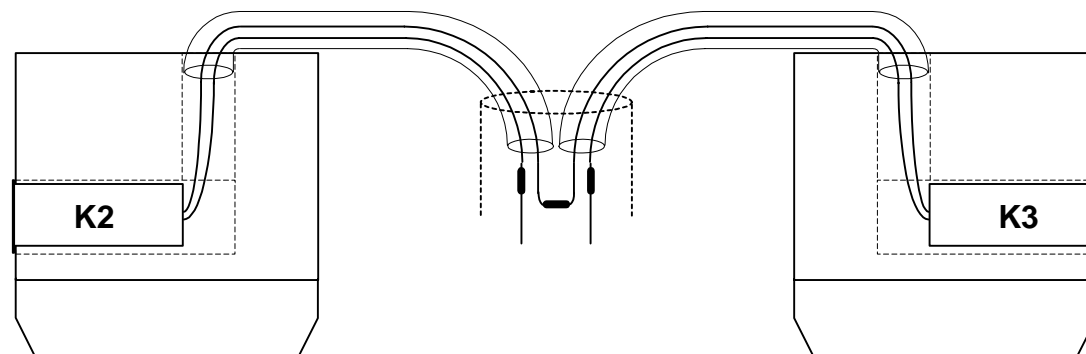
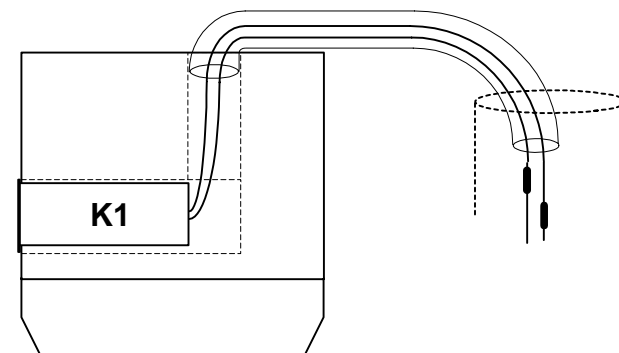
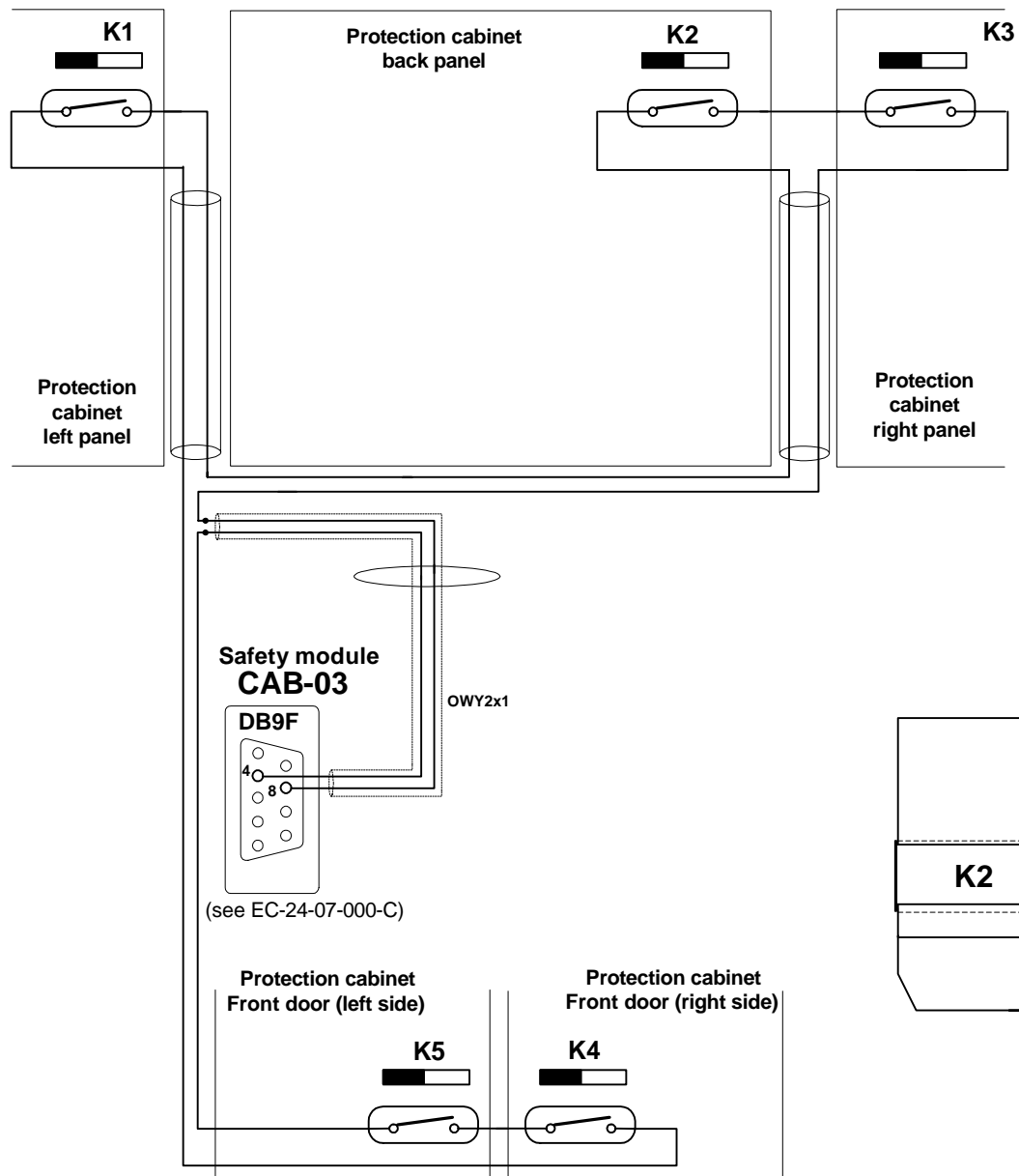
SHEET 1 of 1


A. No.

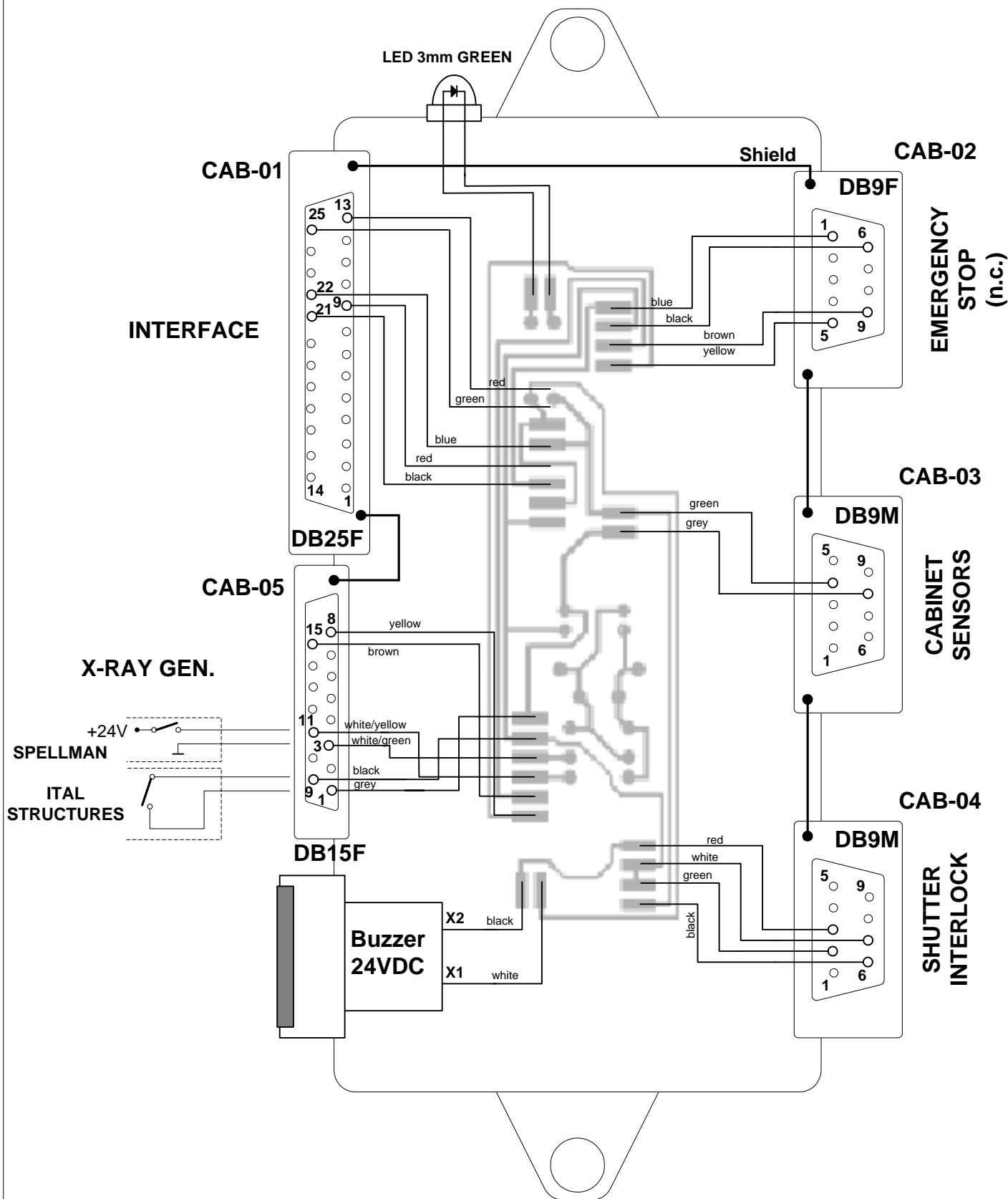
Appr

Date





A. No.	B				 DRG NO. <b>EC-24-11-001-B</b> DRAWN BY: <b>R. S.</b> APPROVED BY:	TITLE: <b>Xcalibur system</b>	
Appr						<b>Protection cabinet sensors</b> FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	
Date	09/2003					DATE: 09.2003	REV. <b>A</b>
						SHEET	<b>1 of 1</b>



DRG NO.

**OD-1-09-12**

DRAWN BY: **R. S.**

APPROVED BY:

TITLE:

**Xcalibur system**

**Safety module - connections**

FILE: \\KUMA\workgroups\electronics\gonio68332\cabinet

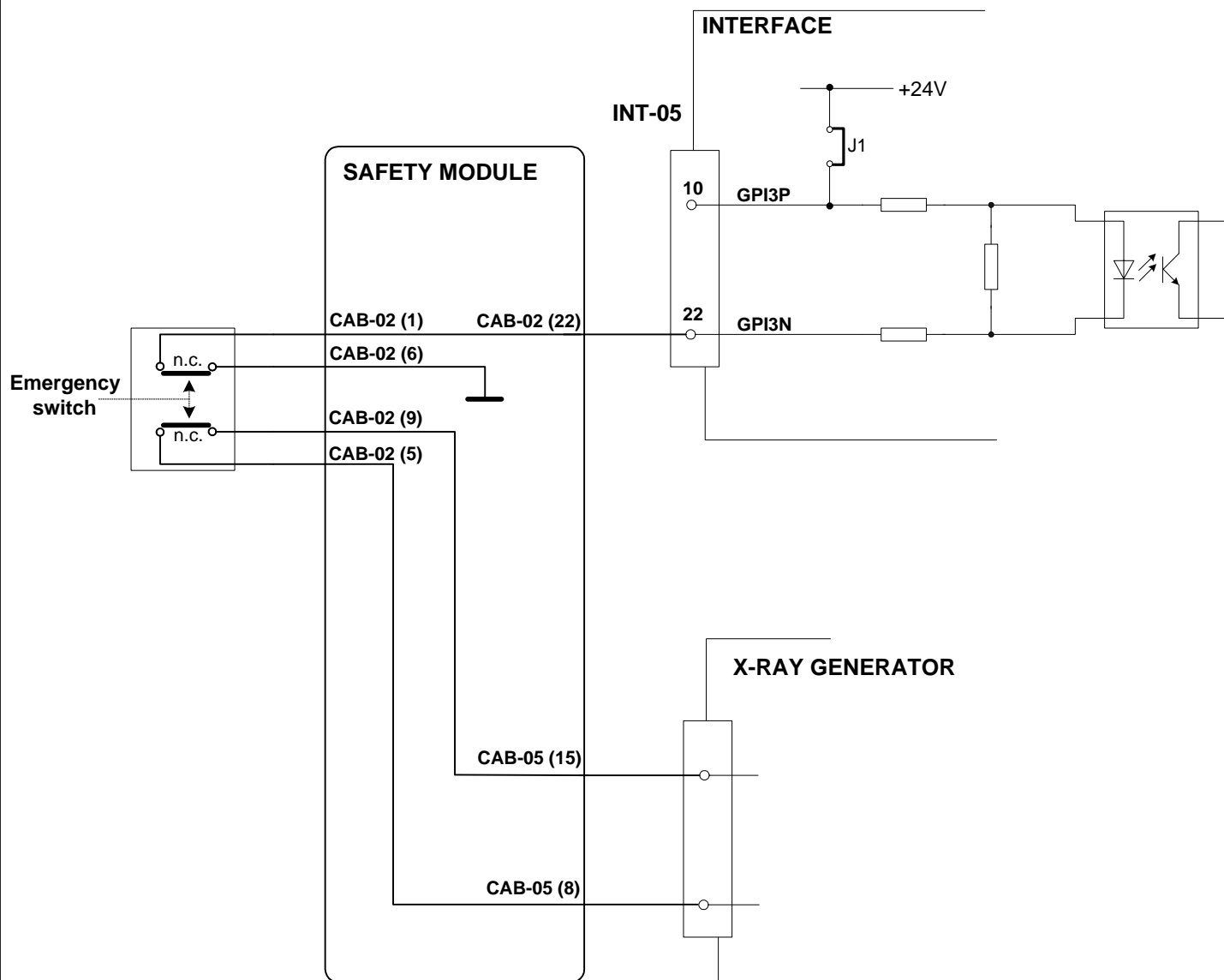
REV.

**C**

DATE: 24/01/2002

SHEET 1 of 3

A. No.	A	B
Appr		
Date	05/2002	06/2002



DRG NO.

**OD-1-09-12**

DRAWN BY: **R. S.**

APPROVED BY:

TITLE:

**Xcalibur system**

**Safety module - connections**

FILE: \\KUMA\workgroups\electronics\gonio68332\cabinet

REV.

**B**

DATE: 24/01/2002

SHEET **2 of 3**

A. No.

**A**

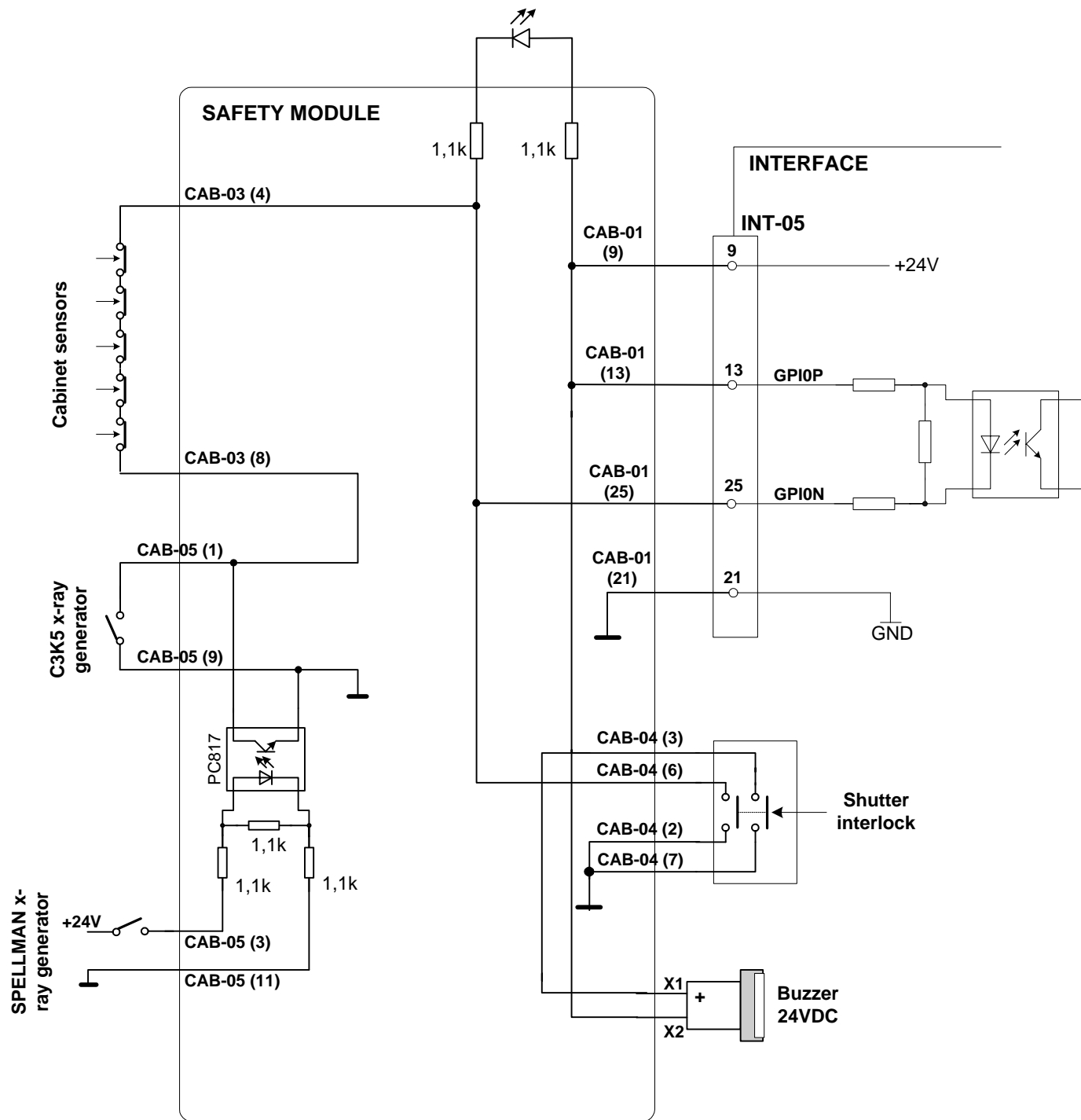
**B**

Appr

Date

**05/2002**

**06/2002**



DRG NO.

**OD-1-09-12**

DRAWN BY: **R. S.**

APPROVED BY:

TITLE:

**Xcalibur system**

**Safety module - connections**

FILE: \\KUMA\workgroups\electronics\gonio68332\cabinet

REV.

**C**

DATE: 24/01/2002

SHEET **3 of 3**

A. No.

**A**

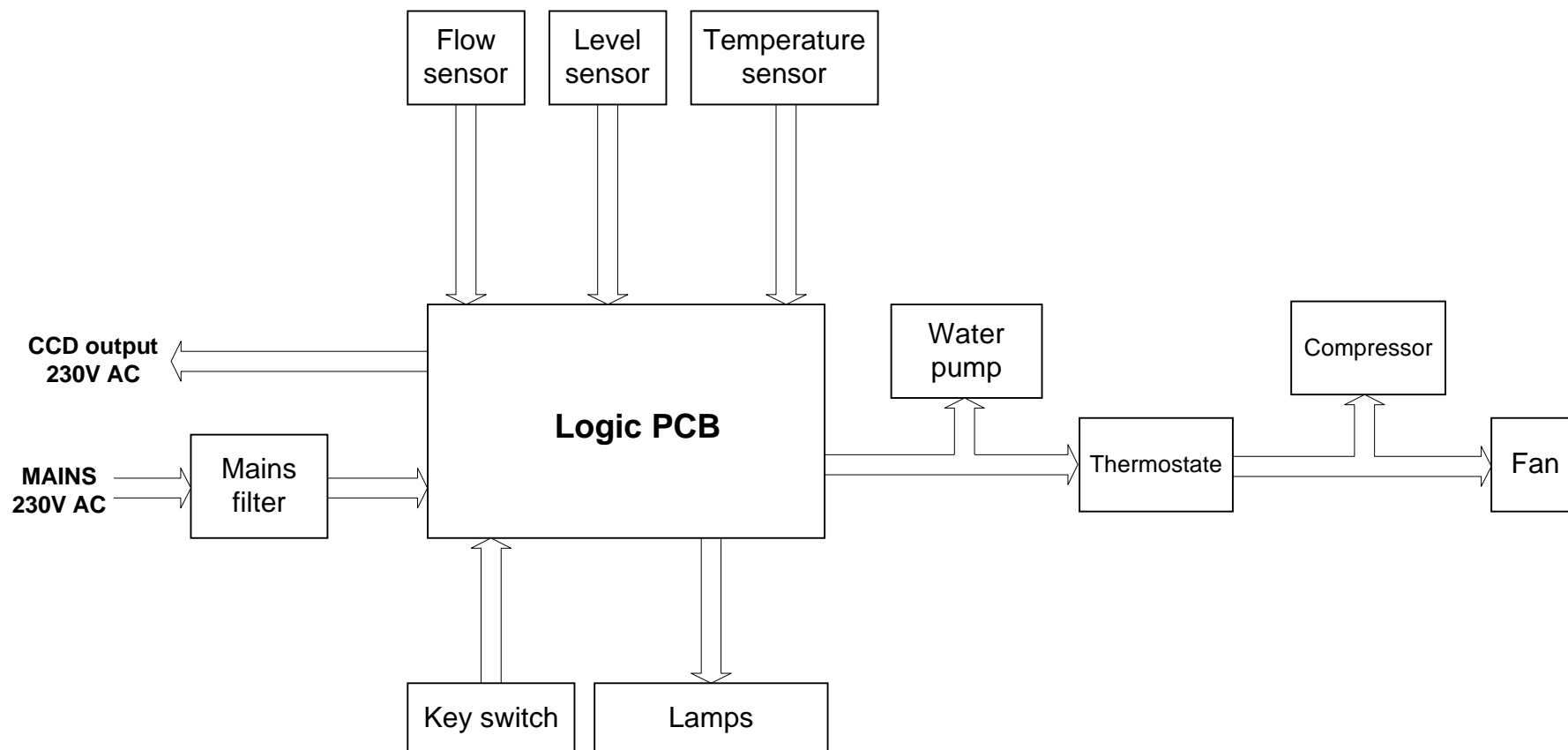
**B**


Appr

Date

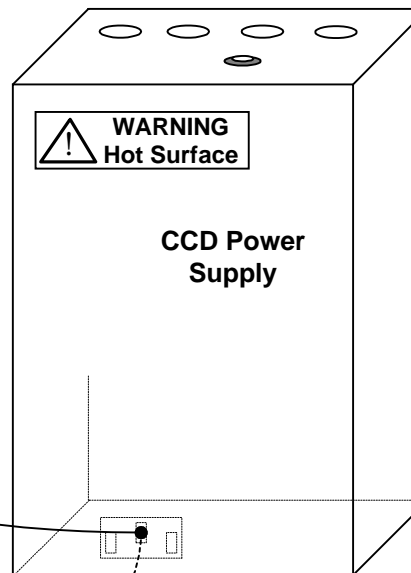
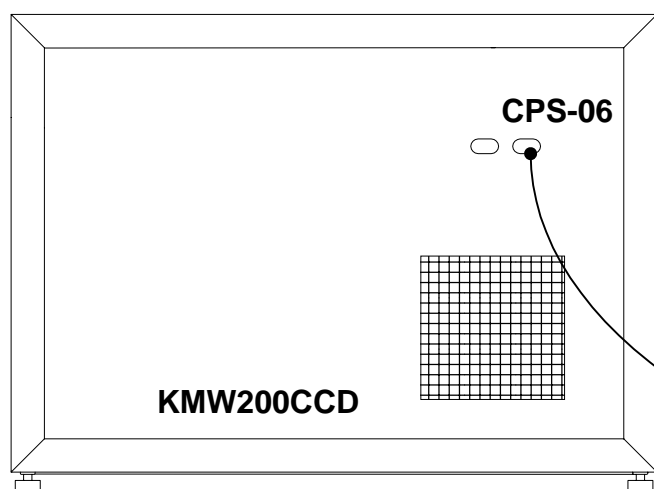
**05/2002**

**06/2002**

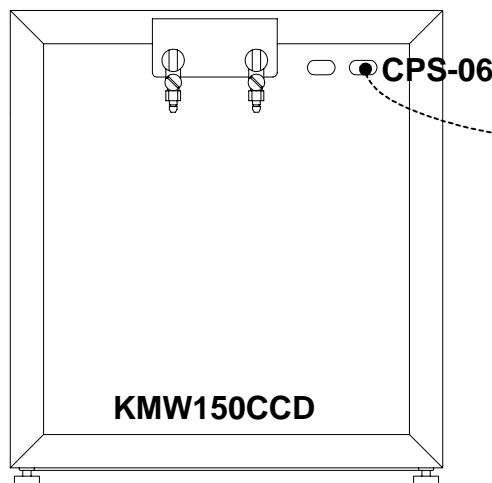


 <b>oxford diffraction</b> DRG NO. <b>EW-02-00-001-A</b> DRAWN BY: <b>R. S.</b> APPROVED BY:	TITLE: <b>KMW150CCD / KMW200CCD</b> <b>Electrical block scheme</b>		
	FILE: \\KUMA\workgroups\electronics\KMW150CCD\		REV. <b>A</b>
	DATE: 10.2002		SHEET <b>1 of 1</b>


A. No.				
Appr				
Date				



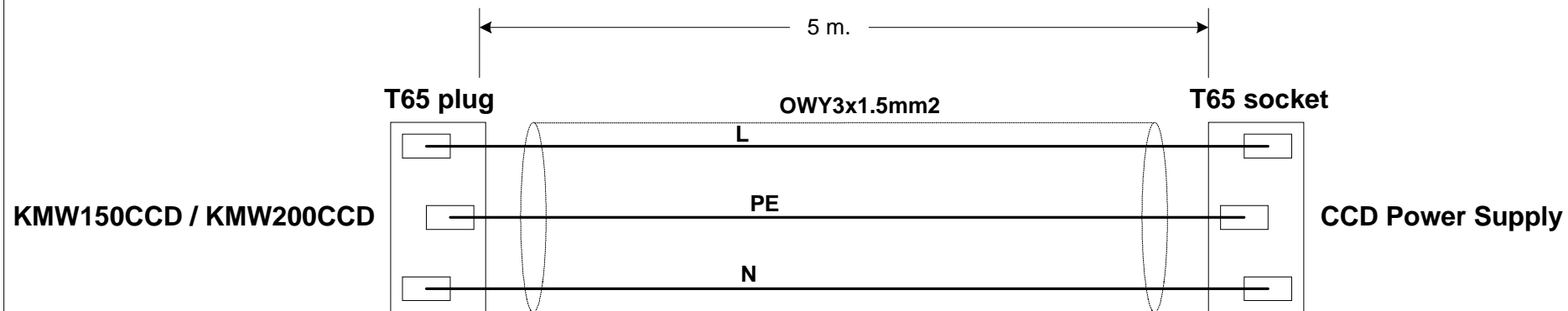
EC-01-02-001-A




KPNS code: <b>EC-01-02-001-A</b>		Length: <b>5.0m</b>	Drq no.: <b>EC-01-02-001-A</b>
Description: <b>CCD supply</b>			
Cable: <b>3 x 1.5mm<sup>2</sup>, white</b>		Connector 1: <b>CPS-06</b>	Connector 2: <b>CPS-05</b>
		PNS code: <b>EA-06-00-014-A</b>	PNS code: <b>EA-06-00-015-A</b>
PNS code: <b>EA-05-00-016-A</b>		Type: <b>T65 male</b>	Type: <b>T65 female</b>
Type: <b>OWY3x1.5mm<sup>2</sup></b>		Location: <b>KMW150CCD</b>	Location: <b>CCD p. s.</b>

 oxford diffraction	TITLE: <b>CCD Power Supply 230VAC Supply cable</b>		
DRG NO.  <b>EC-01-02-001-A</b>			
DRAWN BY: <b>R. S.</b>	FILE: \\KUMA\workgroups\electronics\gonio68332\cables		REV. <b>A</b>
APPROVED BY:	DATE: <b>03/01/2002</b>	SHEET <b>1 of 2</b>	

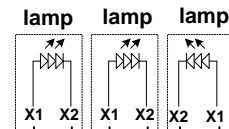
A. No.				
Appr				
Date				



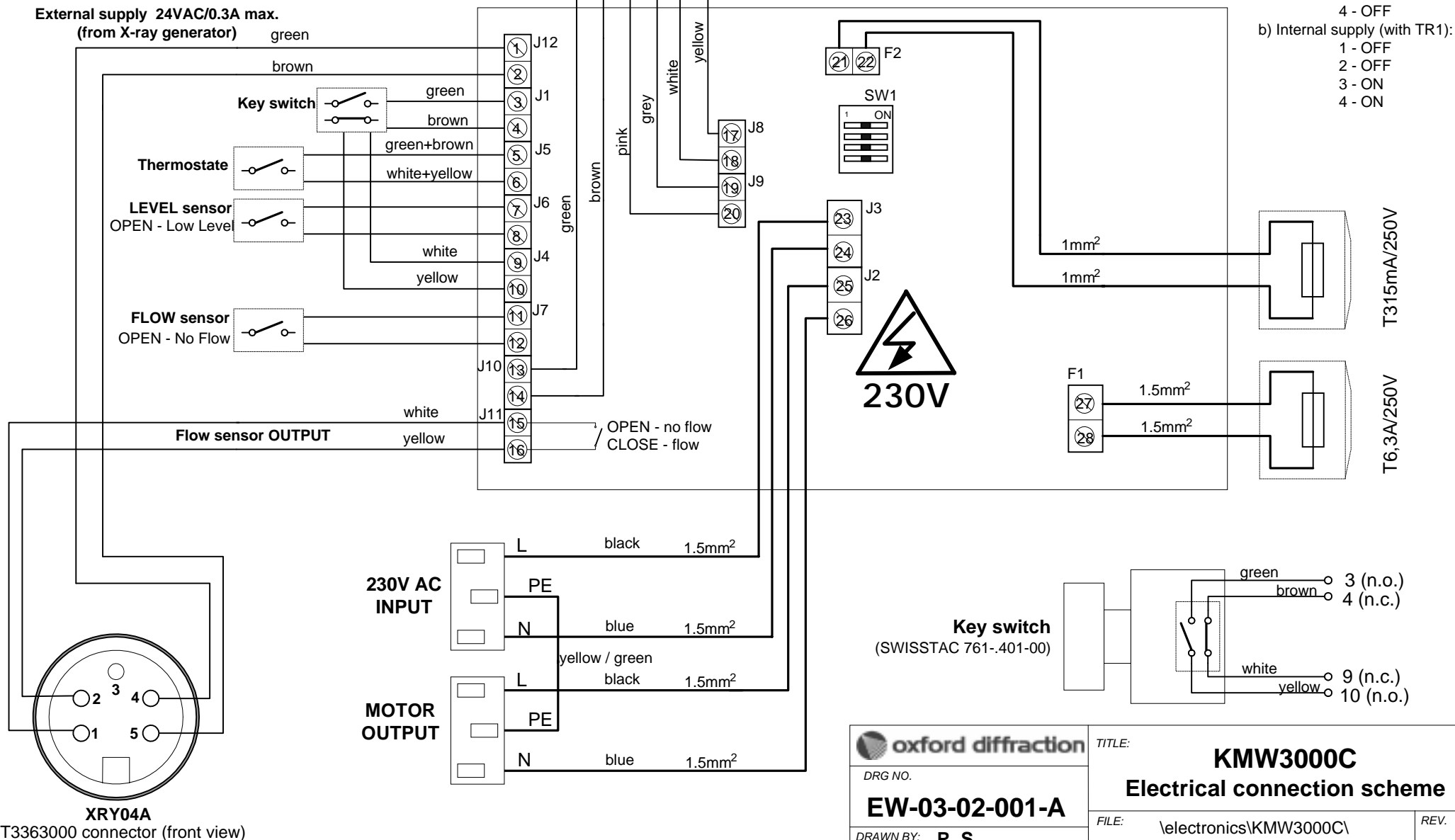
							<b>TITLE: CCD Power Supply</b>	
					<b>DRG NO. EC-01-02-001-A</b>		<b>230VAC Supply cable</b>	
A. No.					DRAWN BY: <b>R. S.</b>		FILE: \\KUMA\workgroups\electronics\gonio68332\cables	REV. <b>A</b>
Appr					APPROVED BY:		DATE: 03/01/2001	SHEET <b>2 of 2</b>
Date								

READY Lamp - MultiLED 24VDC/12,5mA GREEN  
 FLOW Lamp - MultiLED 24VDC/12,5mA YELLOW  
 LEVEL Lamp - MultiLED 24VDC/12,5mA RED

READY FLOW LEVEL



External supply 24VAC/0.3A max.  
 (from X-ray generator)



oxford diffraction

DRG NO.

EW-03-02-001-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

KMW3000C

Electrical connection scheme

FILE: \electronics\KMW3000C\

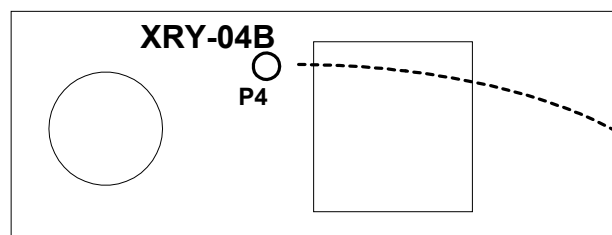
REV. A

DATE: 7/02/2002

SHEET 1 of 1

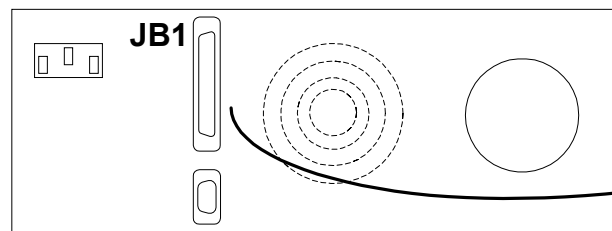


**ITAL STRUCTURES**  
C3K5 X-RAY GENERATOR



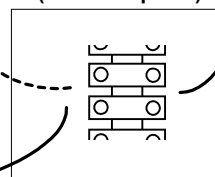
**EC-24-06-001-D**

**SPELLMAN**  
DF/FF X-RAY GENERATOR

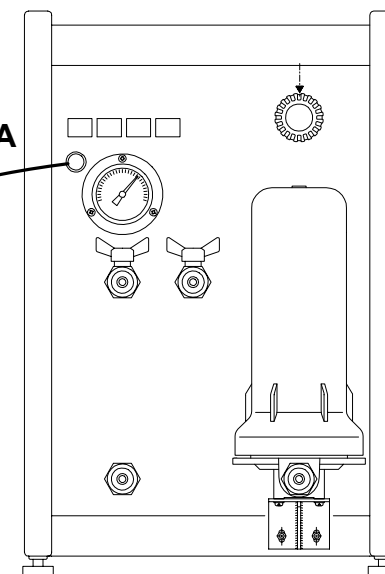


**EC-24-06-001-C**

Screw connector  
(electrical panel)

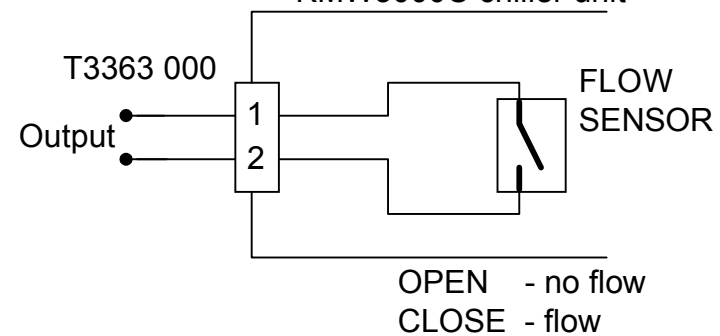


**KMW3000C front view**



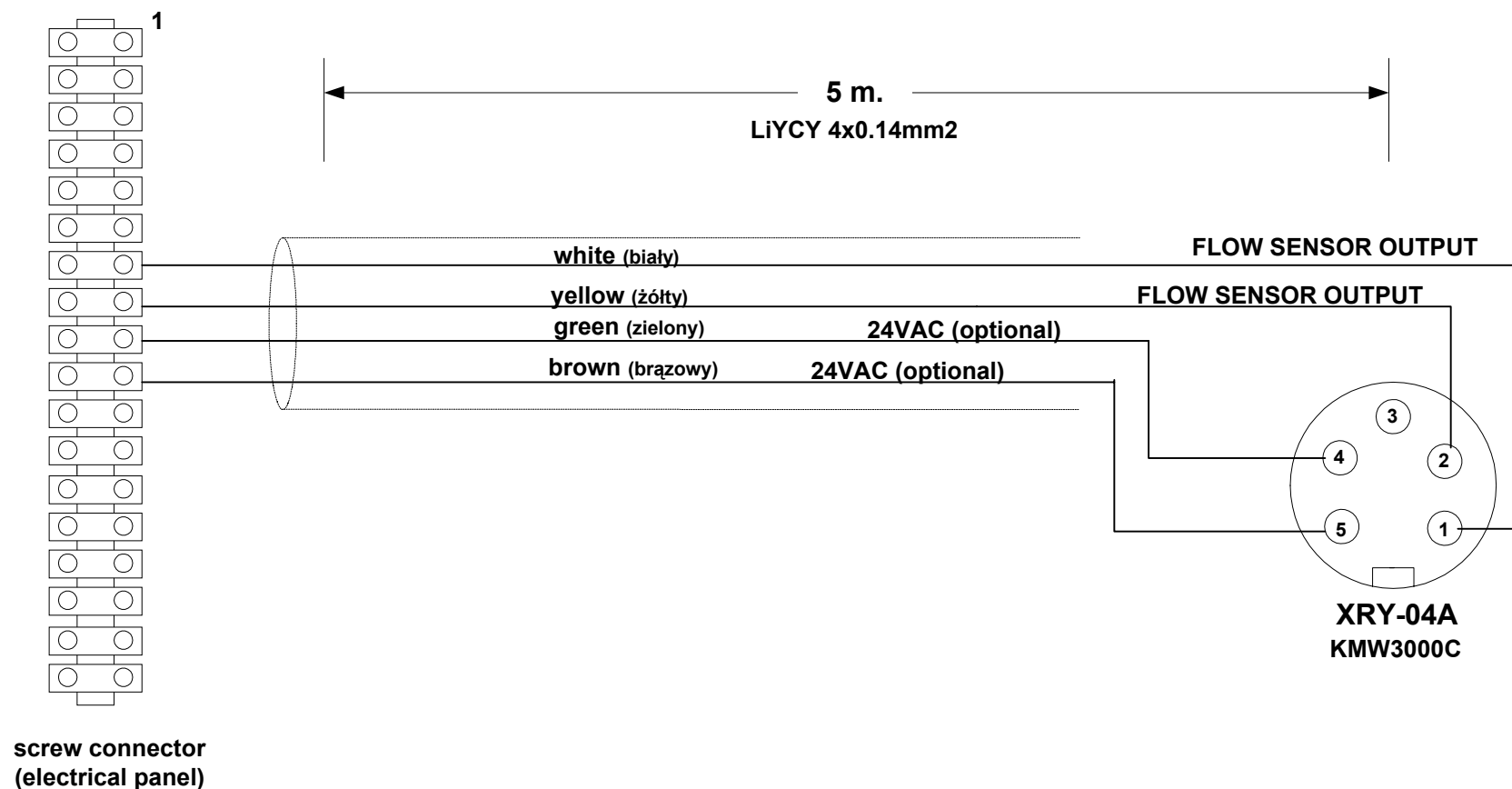
**EC-24-06-001-A**

**KMW3000C chiller unit**




	<b>oxford diffraction</b>		<b>TITLE:</b> <b>KMW3000C</b>	
	<b>DRG NO.</b> <b>EW-24-06-000-B</b>		<b>Flow sensor cable</b>	
<b>DRAWN BY:</b> <b>R. S.</b>		<b>FILE:</b> \\KUMA\workgroups\electronics\KMW3000C		<b>REV.</b> <b>A</b>
<b>APPROVED BY:</b>		<b>DATE:</b> 03/01/2002	<b>SHEET</b>	<b>1 of 2</b>

<b>A. No.</b>				
<b>Appr</b>				
<b>Date</b>				



XRY-04A	Description
1, 2	Flow sensor output
3	no connected
4, 5	External supply 24VAC/0.3A max. from x-ray generator

A. No.	A	B		
Appr				
Date	02/09/2002	04/2003		

 <b>oxford diffraction</b>		<i>TITLE:</i> <b>KMW3000C</b>  <b>Flow sensor cable</b>	
<i>DRG NO.</i>  <b>EC-24-06-001-A</b>			
<i>DRAWN BY:</i> <b>R. S.</b>		<i>FILE:</i> \\KUMA\workgroups\electronics\ KMW3000C	<i>REV.</i> <b>B</b>
<i>APPROVED BY:</i>		<i>DATE:</i> 03/01/2001	<i>SHEET</i> <b>2 of 2</b>